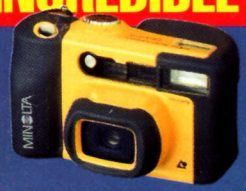


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- 2 BIG Pictures** Of Small Places
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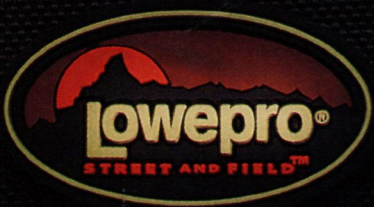
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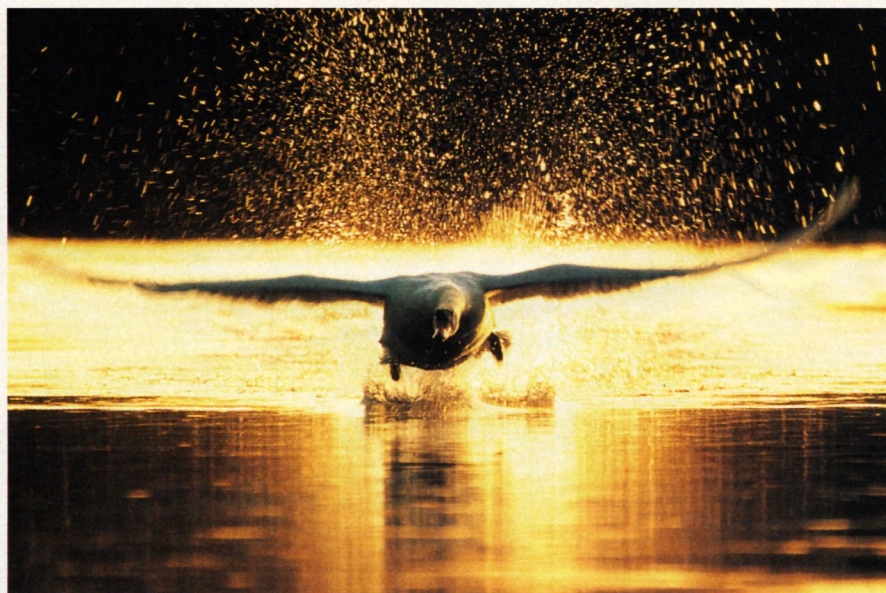
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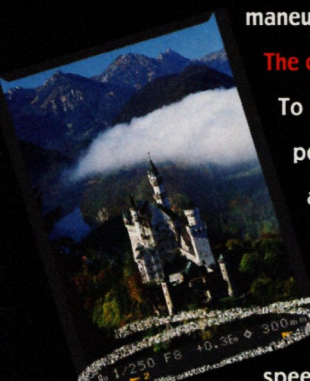
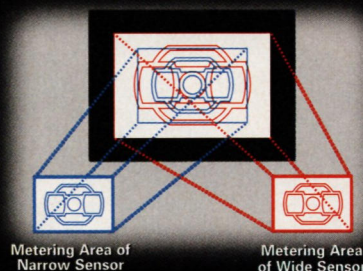
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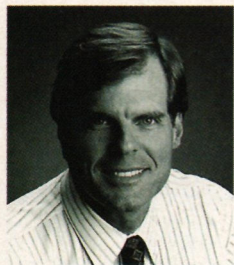
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The focus of this issue is scenic or landscape photography but, in terms of the articles that we've chosen to group under that heading on the cover, we've granted ourselves a rather liberal editorial license and ask that you play along. Some of the articles may address scenic photography from very traditional topic points, while others are less conventional—a stretch even. In any event, our intention is that they all start you thinking about your picture-taking in new ways.

According to surveys that we've conducted over the years, more readers of *Outdoor Photographer* are interested in scenic photography than any other of the categories (wildlife, travel, sport) that we include in our editorial purview. However, we've always considered that there's a built-in bias to such a question and answer, for scenic photography is an integral part of most of the outdoor photography that we cover. For, in addition to strict landscape photography, anytime the composition of a wildlife, travel or sport subject is depicted in the larger setting of its surroundings or environment, the picture becomes a scenic in a big way. Case in point: the bicyclist in Monument Valley on our cover.

Beginning with the more traditional interpretations of the landscape, James Randklev tackles the subtle subjects of the Southeast. Unlike the wild West where photographers can rely on the inherent majesty of nature's mountains, canyons, rivers and coastlines to dominate a composition, the East requires an eye trained to recognize and organize the pertinent details of more understated beauty. Photo-

graphers have always struggled with terms to describe this sort of work, with "intimate landscapes" as one of the more widely used labels that comes to mind. We've simply referred to the challenge as making BIG pictures of small places. There's definitely a particular talent for making these images that needs to be learned and nurtured.

Closely related, but quite different is Theo Allofs' lesson on "graphic" land-

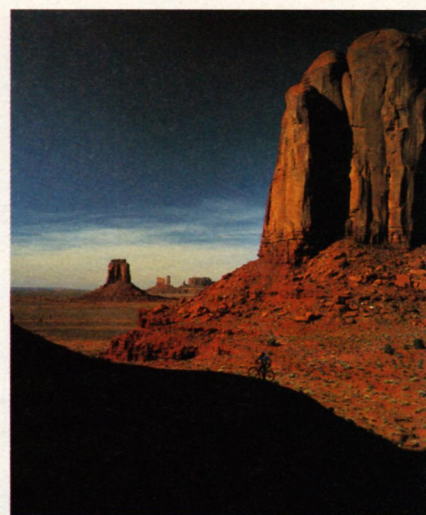
scapes, where a composition is distilled to only the most essential subjects that complement or contrast each other. Here, less is more. To the above, John Shaw adds his take on what is perhaps the most essential element of any dramatic landscape: the sky. In many cases, a successful scenic may be actually more *skyscape* than *landscape*. At the very least, trying to create an exceptional scenic without a remarkable sky is too often like trying to dress well on a bad hair day. No matter what tricks you try to pull out of your camera bag, there's no substitute for an extraordinary sky casting an inspiring light on the land.

Then, Robert Shaw (no relation to John) with his "Windy City Wild" calls attention to the fact that one doesn't have to venture far from home to find often-overlooked, yet worthy, scenic possibilities. By applying basic fundamentals and loving care, the common becomes exceptional. Robert Buelteman does the same, only in black-and-white, a medium that continues to grow in popularity for its unique way of rendering the form and light on nature.

The greatest stretch of the scenic theme extends to Mitsuoaki Iwago's kangaroos. While these marsupials have evolved into incredible curiosities of nature, there's a limit to the number of portraits that can be made without being repetitious. However, the animals live in a landscape that's endless or repetitious in its own way. To maintain visual interest in this mono-subject, wildlife specialist Iwago has had to rely on many of the basic fundamentals of scenic photography.

Finally, our installment of the "Gadget Bag" department concentrates on filter systems, which are most useful to scenic photographers who need to control the elements of light, land and sky. These essential tools round out our special editorial package. Next issue, we'll bring you "Secrets of The Masters."

—Steve Werner, Editorial Director



Photographer: Don B. Stevenson
Subject: Lone Mountain Biker, Monument Valley

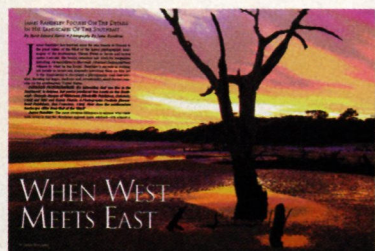
Equipment: Hasselblad 500CM, Hasselblad 80mm f/2.8, Bogen 3021 tripod, Fujichrome Velvia

Situation: I love visiting and photographing Monument Valley; it's a favorite location of mine. It's not too huge as national parks go, which makes it very accessible and easy to travel through. There are a lot of very different dynamics going on throughout the park. I usually visit at least twice a year to photograph. For me, spring and fall are the best times to take pictures. In the summer, there are too many people and too much dust.

I had been scouting locations for getting photos with people in them and came across this spot with a cliff running across the foreground. The cliff created a great shape that added an interesting element to the image. I had envisioned a composition in my head for quite awhile and, when I came upon this spot, I knew I had found it.

In the spring of 1995, I went back to this spot during a trip to the valley with my brother. He's an avid mountain biker, so we were biking and photographing our way through the park. I knew from scouting the area that late-afternoon light would be best, so we set up and waited for just the right light.

Every time I go to Monument Valley, I find something new to photograph. To me, that's what makes a great location—a familiar place where I always see something new.



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Lanting's Leaping Lemur

Does Frans Lanting actually believe his lemur shot is a good one [World View, April, 1998]? Poor judgment is the first sign of altitude sickness. Perhaps he should return to Earth with the rest of us mortals. He doesn't know it, but he needs some oxygen.

Kim MacDonald
Marcos Island, Florida

The subjective aspects that one uses to determine if a photograph is a good one or not is highly individualistic. Apparently, this image didn't pass Kim MacDonald's personal requirements. These comments, however, bring up a very salient point. What are the elements that make up a good image which aren't subject to debate? What are the elements that one can point to and say, without any debate, That's a bad photo?

Exposure and critical focus immediately come to mind. Beyond that, the lines aren't so clear. What's one person's Venus de Milo is another's throw-away junk. Not only does Frans Lanting think that his lemur shot is a good one, but so do we. In fact, we were pretty impressed by it on many levels.

Take another look. The composition is flawless and dynamic. The framing is perfect, and the shutter speed perfectly captures the sense of motion of the leaping lemur. Lanting brings something very unique to nature photography—unique in that very few others can do it—an artistic eye. Much wildlife photography is strictly documentary with little attention paid to the overall composition in the frame. Lanting doesn't merely record the natural world, he enhances it with his photographic interpretation. He makes us see deeper into that natural world by unveiling what's beyond the surface.

The Artist's Vision

I've been a subscriber to *Outdoor Photographer* for 10 years. This is the first time I've been prompted to write a letter to the editor about an article.

"The Storyteller" in the April, 1998 issue was among the most moving articles I've ever seen. Chris Johns is a scholar and an artist whose care for the natural world is astounding. I've

been aware of his incredible photography for many years thanks to a subscription to *National Geographic*.

I'm grateful to *OP* for publishing articles like this one. You give us the beautiful images as well as a glimpse into the heart and vision of the artist.

Joel Webster
Albuquerque, New Mexico

NPS Photo Restrictions

There's a bill in Congress proposing that professional photographers and other artists obtain "...a permit for the making of a motion picture, television program or other form of commercial visual depiction in a unit of the National Park System or National Wildlife Refuge System."

This bill, in its current form, excludes "a visual depiction produced by an individual in a limited number and intended to be sold by the individual as a work of art." Photographers who are shooting for stock or other for-profit enterprises will be required to obtain a permit.

The Senate bill is S. 1614. You can find the full bill through the "Thomas" legislative search on the Internet (<http://thomas.loc.gov>). Simply enter S.1614 in the search box.

Subtle Landscapes

Claude Fiddler's article on the Great Basin [April, 1998] was awesome. He has an eye for the subtle beauty in a landscape that most photography and natural history magazines seem to miss. I was particularly pleased to see that the photographs weren't all taken at the so-called magic hour. Thanks for continuing to print work that photographically explores the world around us without having to adhere to some formula on exposure, composition or times of the day.

Anne Hill
San Antonio, Texas

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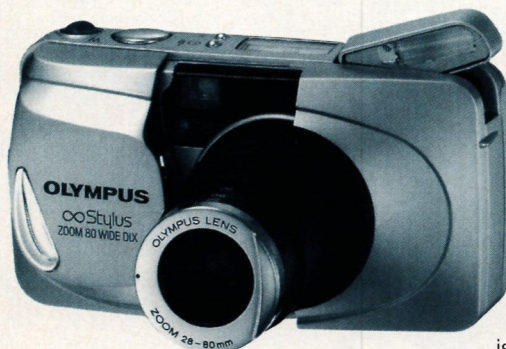
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For high-resolution imaging of terrestrial subjects, check out the Meade ETX Spotting Scope. Use the optional T-Adapter and you have an ultra-telephoto 1250mm f/13.8 lens for photographing or studying details of wildlife and landscapes from long distances, or even shooting the moon and planets. The astronomical-quality, diffraction-limited, multi-coated optical tube provides very impressive images. List price: \$595.

Contact: Meade Instruments, (800) 626-3233, www.meade.com.



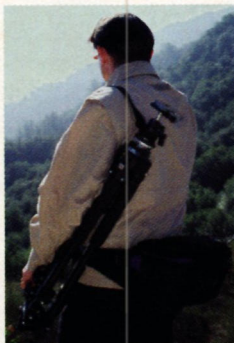
Super Coolscan LS-2000

Produce a clean scan from damaged film at near-drum scanner quality! The new Nikon Super Coolscan LS-2000 automatically removes surface imperfections such as dust, scratches, fingerprints and water spots from 35mm film strips, slides and APS films. Your film is sampled up to 16 times during one scan, and the data is compiled to create a finely detailed image. A true optical resolution of 2700 dpi, 36-bit color and an average scan time of 20 seconds make the Super Coolscan LS-2000 a very desirable option. Windows and Macintosh. List price: \$1,899. **Contact:** Nikon, Inc., (800) 645-6687, www.nikon.com.



Camera/Shoulder Straps

Tote your camera around safely and more comfortably with the Neo-Pro and Neo-Pro II camera/shoulder straps. A non-skid design keeps the strap on your shoulder and an anti-fatigue quality absorbs shock. Or detach the shoulder pad and connect the straps for hand carrying. Also, try out the Tripod Carrying Strap, which has end loops that slide over the top and bottom of your closed tripod. Roll it up and store it in your pocket or camera bag. **Contact:** Cartom, Inc., (800) 829-2420, www.cartom.virtual-space.com.



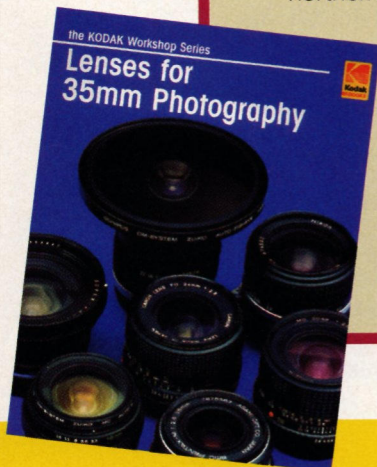
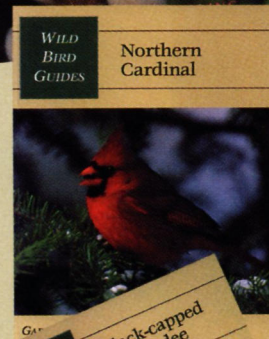
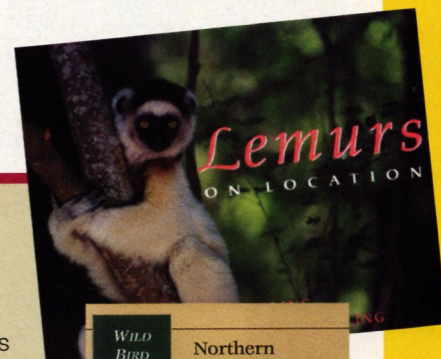
Books And Such

Lemurs On Location by Kathy Darling, photography by Tara Darling (Lothrop, Lee & Shepard Books, 1998). Let your kids explore the forests of Madagascar and study three species of lemurs through vivid, full-color photographs, personal observations and scientific information.

Wild Bird Guides: Northern Cardinal by Gary Ritchison (Stackpole Books, 1997). Learn the lesser-known aspects of this distinctive bird's life in the wild, and enjoy brilliant photographs of northern cardinals in a host of settings and activities; **Black-**

Capped Chickadee by Susan M. Smith (Stackpole Books, 1997). Get an ornithologist's view of this inquisitive, energetic, strikingly marked bird, with photographs that lend aesthetic appreciation and intriguing insight.

The Kodak Workshop Series: Lenses For 35mm Photography by Artur Landt (Silver Pixel Press, 1998). Improve your photography by choosing the right lenses for your 35mm system. This book helps you understand which lens to use and how to take advantage of its capabilities.

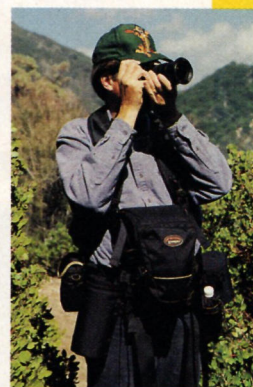




Modular Carrying Systems

Tailor your equipment selection with Lowepro's new Street and Field System, a modular, wearable camera-carrying system constituted by more than 30 individual components that you can select to fit your body size, gear and shooting needs. The system starts with a choice of two waistbelt styles, then you add the shoulder harness or vest harness. The SlipLock attachment system makes securing the modules easy and convenient. **Contact:** Lowepro, (707) 575-4363, www.lowepro.com.

Equipment can weigh you down on long hikes, but Tamrac's new Modular Accessory System helps distribute and organize the load. Attach lens cases, water bottles, film-management bags, filter packs and more to Tamrac hip packs, backpacks, camera bags or modular accessory belt. **Contact:** Tamrac, Inc., (800) 662-0717.



Irish Setter Boots

Ideal for photographers who spend lots of time in the capricious conditions of the outdoors, the new lightweight and waterproof Irish Setter boots provide comfort all day. The Prairie Falcon #822 nine-inch boots come with an abrasion-resistant Vibram Aspen cushion gumlite sole and full Gore-Tex® waterproof protection. List price: \$180. **Contact:** Irish Setter, (888) 738-8370.

Pop-Up Blinds

Set up your blind in less than 30 seconds, and look for that winning bird photograph! The Portable, Field and Boat Pop-Up blind models, plus the new Pop-Up Lay-Down blind, are now available in Advantage Wetlands Camo, which provides a good match for marsh and stubble field terrain.

Pop-Up blinds are made of 500-denier Cordura, are weatherproof and contain inner heat and scents. List price: \$389. **Contact:** Innovative Wildlife Specialties, (402) 454-3334, www.popupblind.com.

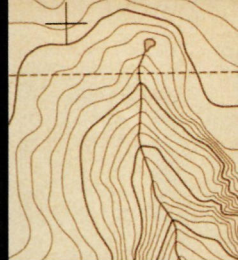


StaticWisk Brush

Make sure your optics are dust-free with the new StaticWisk SW-020. The blend of soft, natural hair and conductive fibers removes debris and static from film, lenses, binoculars, prints and more. Simply sweep the lens and release the dust. If the SW-020 gets soiled, you can wash it in shampoo and water without affecting performance. List price: \$5.95. **Contact:** Kinetronics Corp., (800) 624-3204, www.kinetronics.com.

Online Photography Tutorials

Get lessons from the 1998 Outstanding Nature Photographer of the Year (as picked by the North American Nature Photography Association)—Art Wolfe. The Mountain Zone is presenting an online photography clinic, featuring Wolfe's masterful tips on image-making and artful vignettes. **Contact:** The Mountain Zone, (206) 621-8630, www.mountain.com or Art Wolfe Inc., (800) 473-2205, www.artwolfe.com.



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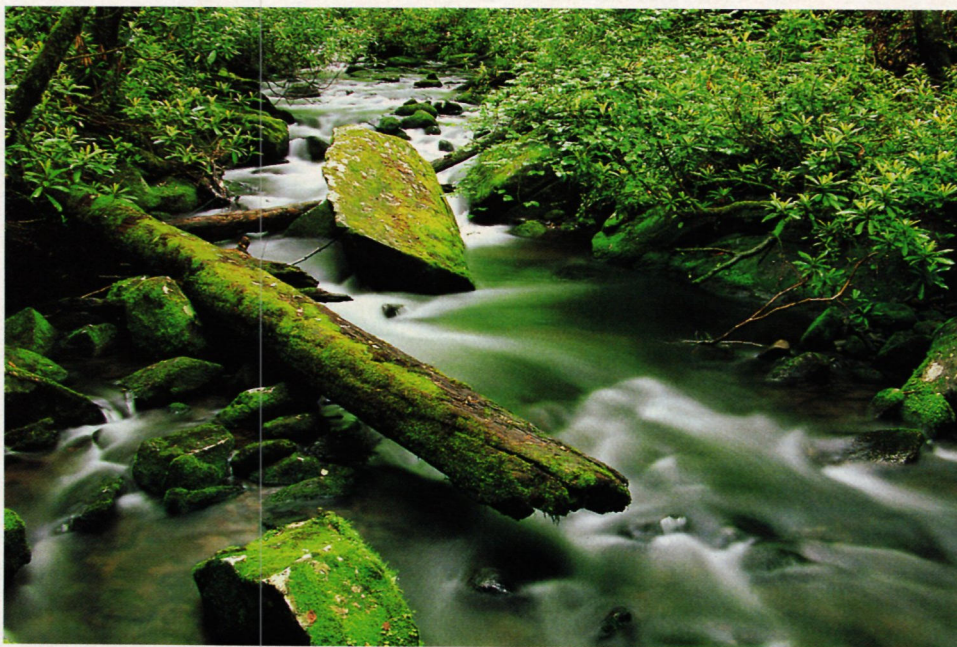


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The Cherohala Skyway

LOCATION: A highway of spectacular vistas, wildflowers and wildlife, the Cherohala Skyway follows the ridge of the Unaka Mountains on the border of Tennessee and North Carolina. Designated as the 20th National Forest Scenic Byway, the 51-mile-long Cherohala offers a variety of both southern and northern forests as it traverses the Cherokee and Nantahala National Forests. It's bordered by areas of great natural beauty, including the Bald River Falls area and the Joyce Kilmer Memorial Forest.

You can reach the Bald River Falls area from the Tellico River Road, about 11 miles from Tellico Plains, Tenn. Bald River Falls has a vertical drop of approximately 100 feet and is surrounded by lush vegetation. The falls can be photographed from the highway bridge over the confluence of the Bald and Tellico Rivers.

Retrace your drive on the Tellico River Road and look for the turnoff to the Cherohala Skyway. At elevations of more than 4000 feet, you enter a northern hardwood forest with beech, birch and maple. The mountains are a riot of brilliant yellow, orange and red in early to mid-October.

If you enjoy photographing patterns and lines, you'll love the dynamic series of rock outcroppings located near mile marker 20. From spring to fall, wildflowers grow among the rocks. Rhododendron bloom along the Skyway in late June; other frequently found wildflowers include trillium, bloodroot, jack-in-the-pulpit, fire pink and crested dwarf iris. Purple thistles and black-eyed susans appear in late spring, followed by ironweed and goldenrod in late

summer. August and September are the best months to photograph swallowtail butterflies among the flowers.

Common along the highway are red squirrels, red and gray fox, white-tailed deer and groundhogs. Many warblers migrate through the area in the spring, and hawks and other raptors frequent the slopes of these mountains.

Forty-one miles from the Tellico Plains entrance, near Robbinsville, N.C., a sign directs you to nearby Joyce Kilmer Memorial Forest. This incredibly beautiful area is noted for its grove of virgin timber, accessible by a one-mile loop trail. This old-growth forest is composed of yellow poplar, hemlock and basswood. The number and variety of spring wildflowers mirror those on the Skyway.

WEATHER: The area basically has a mild climate. Winter snows can close the highway, but this happens rarely. At lower elevations, summers tend to be warm, in the high 80s to 90s with high humidity. Temperatures at higher elevations are often five to 10 degrees cooler. Afternoon thunderstorms are frequent occurrences anytime from late spring through summer. Spring and fall tend to be very pleasant.

PHOTO EXPERIENCE: A 24mm lens is effective for an overall view of Bald River Falls and can be useful for the "grand scenic" mountain views. Try a 100-300mm lens to isolate details in your scenics or to compress foliage to intensify fall color. A polarizing filter helps eliminate reflections off wet rocks and cuts through the frequent haze.

Contact: Cherokee National Forest, (423) 253-2520; Nantahala National Forest, (704) 479-6431. **OP**

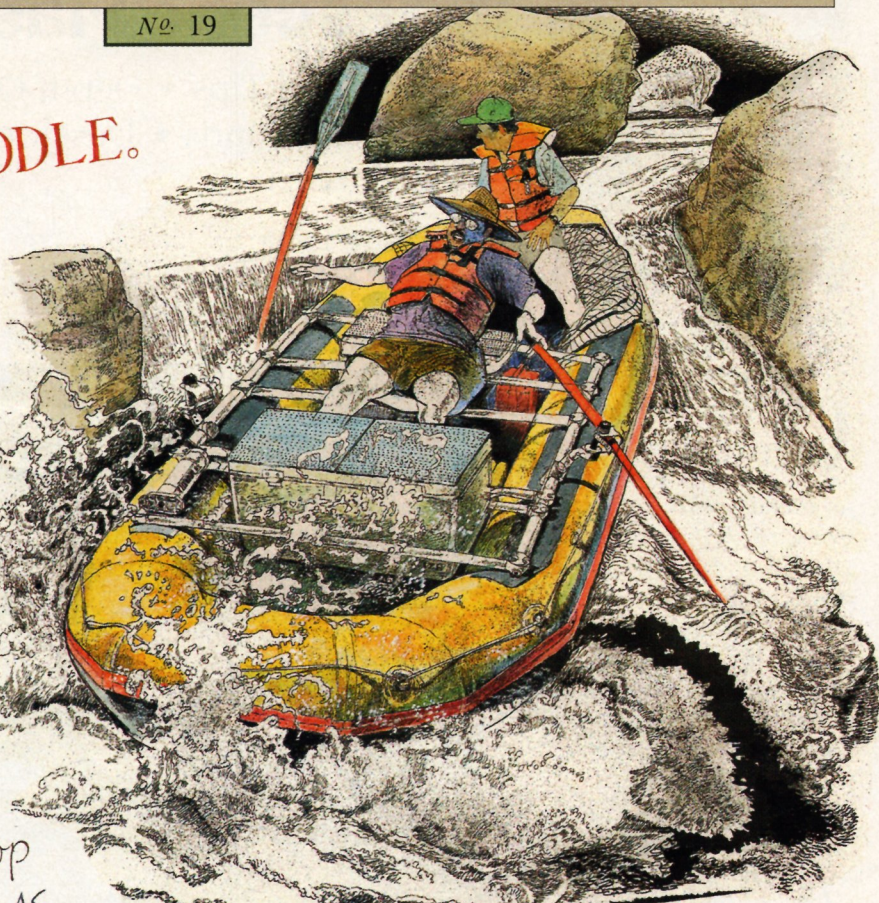
BEST TIMES If possible, travel and photograph during the week. April is excellent for wildflowers and flowering shrubs and trees. Mid- to late June is great for rhododendron, flame azalea and mountain laurel and early to mid-October for spectacular fall foliage. Winter photography can be beautiful, but snows are unpredictable; the Skyway may be closed if there's significant snowfall.

↓
TENNESSEE NORTH CAROLINA

Text And Photography By Tom And Pat Cory

UP A CREEK Without A PADDLE. OR A MOTOR.

I lost an oar as our white water raft shot out the rapids and into the mouth of the **Owyhee River**, a **wind swept, 10-mile long reservoir**. As I started our small gas motor, a stray rope wound itself around



the prop tight as a drumhead.



KNIFE into the tangled mass. THEN I remembered my ever-present **LEATHERMAN MICRA**. Its scissors bit through that rope like a chain saw through butter. After my experience I'd say that "good things come in small packages" is a **BIG understatement**.



Ralph Giffin,
Azalea,
Oregon



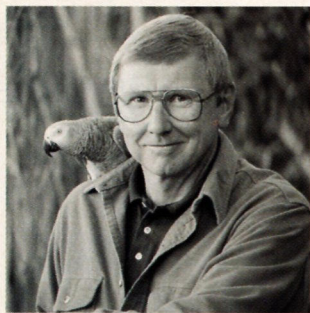
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Iridescent Flash

Hummingbird Tips • Depth Of Field
Black Backgrounds • Desktop Darkroom
Old Lens Focus

BY GEORGE LEPP

Hummingbird Tips

Q I recently photographed birds with iridescent chins and foreheads. The light source was a strobe next to the camera. I found I was unable to predict when the iridescence would be revealed or the wanted areas of color would be a dull black. Do you know of any way to arrange strobe lights to be sure the colors will show?

J. Kern

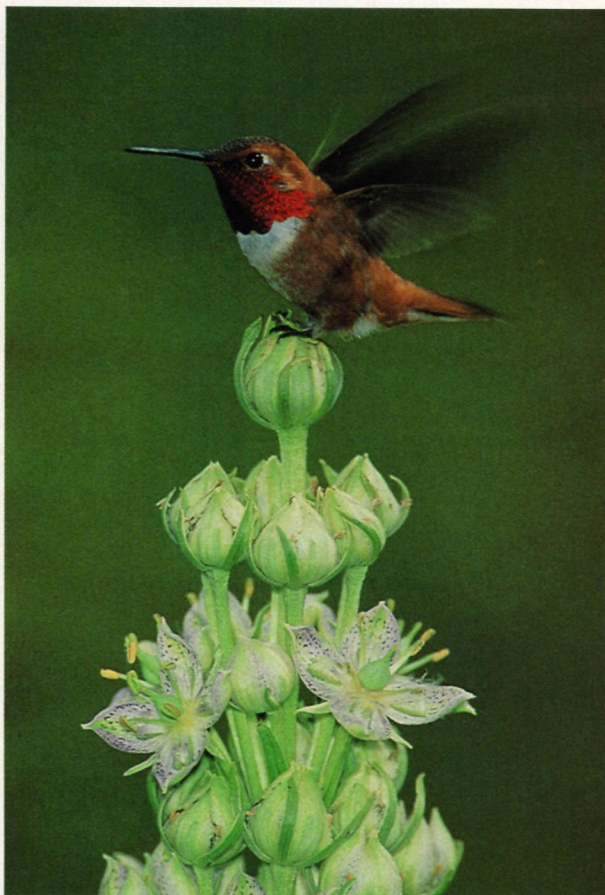
St. Augustine, Florida

A The iridescence display of hummingbirds and other birds is a difficult phenomenon to capture on film. The animal has the ability to change the angle of the features to either display or hide the color in them. The camera "sees" the bird's display only when the proper angle of the camera, light and feathers lines up.

Having the flash close to the camera's lens is a good idea and will increase your chances. I've tried using multiple flashes to increase the chance of capturing the colors. Usually, it still depends on the bird's angling its feathers. I've had some success using my son's Project-A-Flash due to its close proximity to the camera lens and increased light focused on the subject.

The image of a rufous hummingbird shown here was taken in Colorado during the month of July. I had a Canon 300mm f/2.8L lens on the camera with a 2X AF tele-extender (600mm) and a Canon 540EZ flash with the Project-A-Flash attached. The ambient light in the background was allowed to record due to an exposure of $\frac{1}{25}$ at f/8. I took numerous exposures of hummingbirds that day, but only a few had the iridescence showing. Contact Tory Lepp about the Project-A-Flash at (805) 528-0701 or check it out at www.leppphoto.com.

20 Outdoor Photographer



Depth Of Field In-Depth

Q I need a chart that would list the depth of field for different focal lengths at each aperture. None of my lenses have a depth-of-field scale on them.

J. Wood

Sparta, Michigan

A There's a great free program available on the Internet at the site for Picture Window 2.0 (www.dl-c.com). Jonathan Sachs, the person behind this powerful, yet inexpensive imaging software (\$39.95), has made available a simple program where you just fill in the blanks and it calculates depth of field and hyperfocal distance in a fraction of a second. Download the program, and you can make up a series of combinations to print out and take in the field. (Editor's Note: FotoSharp also makes some of depth-of-field cards. Contact them at (206) 248-1840.)

Black Backgrounds

Q I've noticed some of the backgrounds in flower photographs are a clean black. I've had problems with shine and uneven black backgrounds. What's the trick to cleaning them up?

J. Dodge

Anchorage, Alaska

A The most common method is a result of using electronic flash in close-up photography. If the background isn't very close to the subject, the light falls off quickly and doesn't light the background. The use of a faster sync shutter speed like $\frac{1}{250}$ sec., and a small aperture like f/16 will add to the darkness of the background. These settings prevent the ambient light from recording on film while the shutter is open for the flash exposure.

Another method is to look for a shadow in the back-

ground and have the subject in the brighter sunlight. The black dropcloth in the background will work best if it's in the shade while the subject is again in brighter light. Also keep the black cloth as far back from the subject as possible.

Many photographers prefer to have the lighting on the background similar to the lighting on the subject to keep the image from looking like a night photograph. The choice is yours.

The Digital Desktop Darkroom Is Here Now

Q For years I've happily been turning out 8x10 prints from my 35mm slides using the Cibachrome process. I've always used glossy paper and good optics for that tack sharpness. Now we've moved and, prior to building another darkroom, I'm wondering if there's a scanner for slides and a printer for my computer that will give me the optical clarity I'm used to?

R. Cvar

Oconomowoc, Wisconsin

A The answer here is a full day's seminar. I'll distill the answer into a few general statements. I feel that the digital desktop darkroom is here now. Numerous scanners are available to scan slides and negatives into your computer, ranging in price from \$500 to \$1,800. The price difference involves resolution and information in the shadows of the scanned image. The new under-\$1,000 scanners are amazingly good.

Desktop printers are also improving with each new generation. There are at least four excellent photo-quality, 8.5x11-inch printers (even one at 11x17-inches) available in the under-\$500 range, with each having advantages over the other. The one fly in the ointment at the moment is the longevity of the prints. Inkjet prints are expected to last about five years, and the Alps printer's dry ink is said to last longer. We expect the longevity question to be solved soon as manufacturers address the problem.

The prints from the photo-quality printers like the Epson Stylus Photo and Canon BJC-7000 rival the color and sharpness of the Cibachrome (Ilfochrome) prints you've made in the past—especially if printed on glossy photo paper. The computer and imag-

ing software will give you more control of color and contrast than ever before. I've had more fun with my photography now that I'm using the digital process than ever before. It's photography in a whole new light.

Ready For The Old Focus Home?

Q I have an inexpensive 75-300mm manual-focus zoom lens and usually use the lens fully extended. At certain distances, the subject is seldom sharply in focus, though something in the foreground or background will be. Is the lens at fault, or is it my eyes? I use corrective lenses for nearsightedness.

D. Bubalo Jr.

Brainerd, Minnesota

A At about the age of 40, our eyes start to go south. That doesn't mean we're in need of a new autofocus camera system, but you will need to pay close attention to critical focus. A lens set at 300mm and f/5.6 has approximately four inches of depth of field while the lens is focused at 20 feet—not much room for error. The fact that sometimes the missed focus is in front and other times behind the subject tells me that it's probably missed focus and not a defective or damaged lens. The next time you shoot, be especially aware of the focus plane. Also, focus faster—it's easier to see the focus change.

If wearing glasses, be sure that the correction you're using is for distant vision. Close-up glasses are good for evaluating images using a loupe on a light box, but not for focusing a camera in the field. If you're still missing the focus mark on a regular basis, maybe you're a candidate for autofocus.

Check the diopter setting at the viewfinder. Some cameras have an adjustment that takes the place of glasses. If that setting is wrong, you could have trouble focusing. With corrected distant vision, that diopter should be set at "0" or in the middle of the adjustment scale. I've seen a lot of cameras with this adjustment way off.

If you have any tips or questions, address them to: OUTDOOR PHOTOGRAPHER, Dept TT, George Lepp, 12121 Wilshire Blvd., Suite 1200, Los Angeles, CA 90025-1175 or on the Internet at www.leppphoto.com.



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Combining sophisticated automation with simple manual operation, the new Sigma SA-5 delivers an ideal balance of cutting-edge functions. And the SA-5 now features a classic titanium silver finish. A new cross-type autofocus sensor takes autofocusing accuracy, speed and reliability to the highest level in a wide range of lighting conditions. Plus, a multiple exposure system lets you record up to nine images per frame.

Other features include improved flash control functions; the choice of five exposure modes (manual, shutter priority, aperture priority, shiftable auto-program exposure and auto-programmed exposure); auto-bracketing for +2 EV in 1/2-stop increments; three metering modes (eight-segment TTL evaluative, center spot and center-weighted average); shutter speeds from 30 to 1/4000 sec.; and automatic film loading, advance and rewind. And more.

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inches. Its high-performance design incorporates 13 lens groups with 14 elements.

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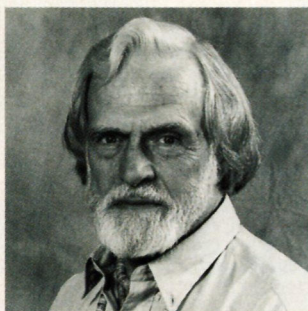
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Tell The Tale

Nature's story continues and so do the photographers who document it

BY LEONARD LEE RUE III

Environmental author Bill McKibben wrote an essay on wildlife photography in the Fall 1997 issue of *Doubletake Magazine*. The essay was reprinted in Harper's November 1997 issue and mentioned in *Audubon Magazine's* January/February 1998 issue. I'm sorry to say that I had never heard of either Bill McKibben or *Doubletake*.

The furor caused by his essay prompted much soul-searching among photographers and a rebuttal in the January/February 1998 issue of the *NANPA Currents Magazine*. Titled "The Problem With Wildlife Photography," the gist of the essay was that all the wildlife photos needed have already been taken; that we as wildlife photographers are a hazard to the wildlife we photograph; that because of our photographs many people (trying to duplicate our work) are being injured; and that we're wrong in photographing game farm animals.

McKibben proposed that all the major magazines, book publishers, television and movie producers who use wildlife photographs band together and form a pool into which all currently working photographers could submit their work for a two-year period, after which time no more photography would be accepted. The editors and publishers would then go to the pool for their photographic needs. His statement that all photos that need to be taken have been taken except for newly discovered species was challenged by the major photo editors and photographers.

This is my 53rd year as a professional wildlife photographer. Most of the photographs being taken today are better than those I took when I started out because of the advances made in all aspects of photo equipment. The fantastic fine grain and great color saturation of Kodak's new Professional E200 Ektachrome film, pushed to 1000, stops wildlife action in a way I couldn't begin to dream of shooting when I used the first Kodachrome films (ISO 8). These new products will allow for a creativity in the photographs of tomorrow that wouldn't be in any pool of photography today.



I'm a naturalist first and foremost. I'm able to make a living that allows me to continue to study nature. I've been studying and taking notes on my observations of wildlife and nature for 64 years. Yet, every time I go out to photograph, I learn something new. Not by a long shot have I learned all there is to know about any creature. What I have learned about wildlife and nature has been translated into knowledge for others through my 25 books, 1000 columns and more than 4000 lectures.

My goal in life has always been to show others nature and wildlife, as most of them will never have the opportunity to see it for themselves. You don't miss what you haven't seen, and I know that through my work I've created interest in wildlife and nature—people care enough to want to preserve what we have left, helping to ensure a future for wildlife. I'm not unique nor alone in this endeavor. This tremendous increase in and dissemination of knowledge would stop if we stopped being wildlife photographers.

In my columns, in my books, in my lectures, I constantly stress that no lens shorter than a 400mm should be used when photographing deer, elk, moose, bison, etc. With a 400mm lens, you can stay 150 feet away from big game

(Cont'd on page 97)

SIGMA



OUR WORLD

A Sense of the Past Lingers As You Pass Through the Cobble Square - A Journey in Tuscany, Italy
Michael Yamashita/PPS: Born 1949, San Francisco; third-generation Japanese American. Began taking pictures during a visit to Japan to explore his own roots; currently works mainly for National Geographic.
Photo Data: Sigma APO 70-200mm EX HSM, shot at 1/250 sec. at f/2.8

MICHAEL YAMASHITA SHOOTS THE WORLD WITH A SIGMA ZOOM

Suddenly, as if time had stopped, medieval streets appear beyond a field of rye. Captured for eternity, through the photographer's Sigma zoom, such scenes offer a fascinating glimpse of days gone by.

"This lens gives me the performance I depend on." Michael Yamashita

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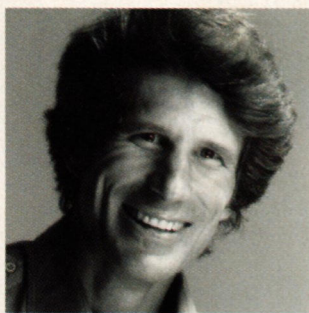
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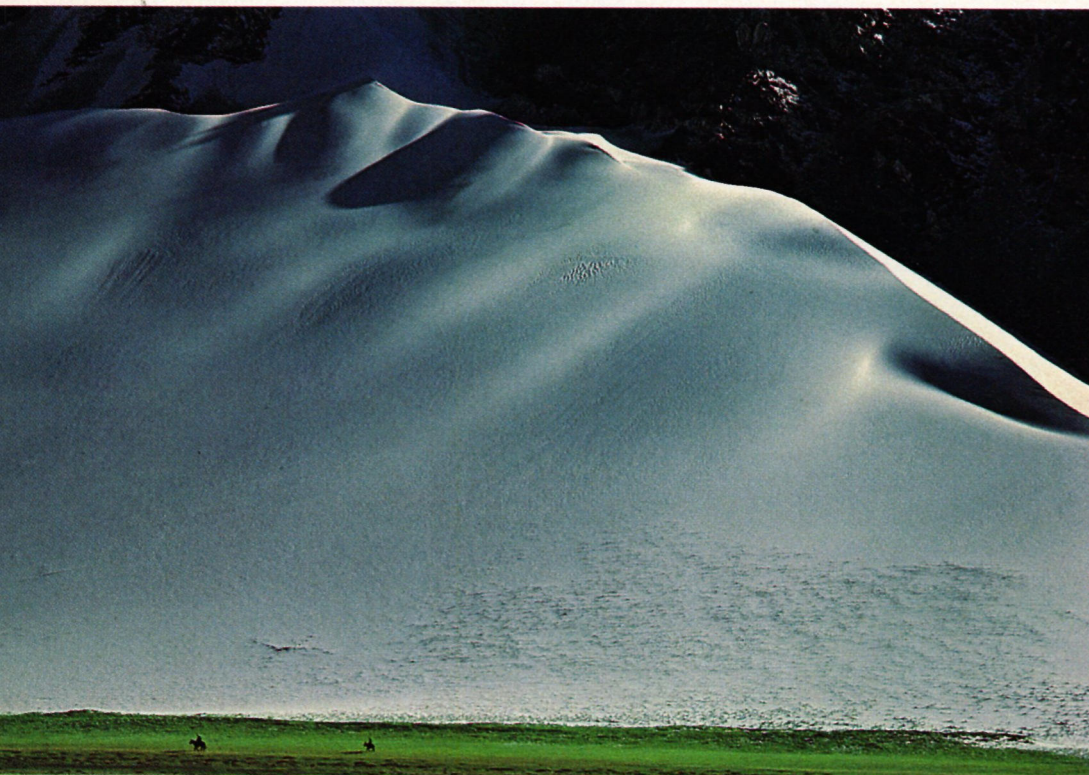
Zoom APO 70-200mm
f/2.8 EX HSM



Grand Illusions

The emotional content of an image is affected by both viewer and photographer perceptions

BY GALEN ROWELL



No photograph is truly successful unless it triggers strong emotion. To make this happen, your viewer's attention must focus on the intended subject. And yet that subject isn't really there. All photographs are illusions. You're not looking at riders beneath a giant sand dune on this page. It's only paper and ink.

One of the more famous visual illusions shown in psychology books appears to be either a vase or a pair of faces. A person not familiar with the illusion sees only one aspect at first. When the other aspect is seen, the first one disappears. Though it becomes ever easier to go back and forth between the two apparent realities, no amount of familiarity will allow both subjects to be seen at the same time. Neuroscientists have proven that the different aspects are pro-

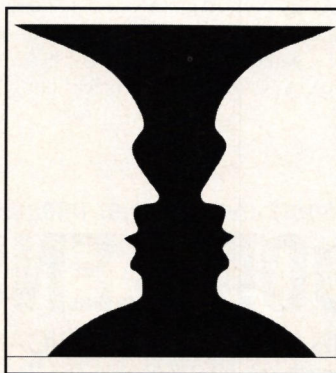
cessed by different regions of the brain.

However, the more illusions the better in a photograph intended to convey mystery.

So it is for all visual arts. Illusions are created in the mind of each human being as the result of viewing a physical art object first imagined in the mind of another. Some

people may love a particular photograph, while others loathe the same image as it downloads negative perceptions from their life experience. Still others withhold emotional involvement and say, "That doesn't do anything for me!"

All these responses relate to our unconscious assumption that a photograph represents more than a straight depiction of the world out there. Meaningful photographs ooze human endeavor to symbolize the meaning of our world and our lives upon it. Images that hold the most power for us tend to focus on loved



SIGMA



OUR WORLD

Nature's Fantastic Creations Surpass Human Imagination - Discovery in a Malaysian Rain Forest

Kazuo Unno: Born 1947, Tokyo. Became a freelance photographer, specializing in insects, after studying entomology at Tokyo University of Agriculture and Industry; shoots natural science photos, both in his native Japan and in the rain forests of Asia and the Americas.

Photo Data: Sigma 105mm f/2.8 EX Macro, shot at 1/250 sec. at F11, using flash

KAZUO UNNO SHOOTS THE WORLD WITH A SIGMA LENS

Walking through the jungle, he sensed a slight movement and looked down to find a mantis, perfectly disguised as a dried leaf. Unno captured this wonder of nature on film through the eye of his Sigma Macro lens.

"I'm constantly inspired by this lens' remarkable definition." Kazuo Unno

The Sigma 105mm EX Macro delivers superb, distortion-free images throughout a broad focus range, from infinity telephoto through 1:1 (life-size) macro without accessories. Its exceptional clarity adds a sense of perspective, breathing life into any composition. A straight-drive focusing system and screw-in hood make polarizing filter adjustment easy. These features and other Sigma optical advances, including an uncommonly deep field of focus, make this an ideal lens for a wide variety of applications, from nature photography to portraits.

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ones, leaders, tragedy or beauty.

This illusory emotional content depends on us not questioning a photograph's technical quality or validity. When our attention is drawn to technical aspects, we disconnect from emotional content as surely as we stop seeing the vase when we see the faces. As we see a nature photograph to be unsharp or manipulated, our brains shift gears.

Loss of emotional power is also related to the viewer's life experience and the context in which the photograph is presented. Imagine the difference in your emotional response to the same image appearing in *National Geographic* compared to *The National Enquirer* captioned "Bigfoot in the Wilds of British Columbia."

We photographers truly see images differently than the rest of the public because we tend to view all photographs with a more technical eye that reduces our emotional connection. More of our life experiences have been devoted to looking critically at photographs. This suggests why books and magazines with images chosen by editorial committee tend to have a flatter emotional response than ones where selections are made by a single, competent eye. Images that pass muster through a group of individuals with differing emotional and technical receptors in their minds are either so astounding that they hold universal appeal or so banal that they offend no one.

We can't escape seeing illusions because perception isn't a democratic process. We jump to unconscious conclusions. Even after illusions are explained to us, understanding won't take them all away. Were it otherwise, we'd be unable to enjoy photographs. The more we understood them, the less illusory reality they'd hold.

The illusion that a wild animal inhabits an image before our eyes isn't destroyed by our knowing that the photograph is an illusion or briefly noting that it's slightly off-color or unsharp. That understanding allows me to prevent getting stuck on the technical side of viewing or creating images by consciously tuning in to their emotional and illusory potential. When I'm in the field and something stirs within me, I need to assess the

technical side before pushing the shutter release, but if I simply take a photograph at this stage, it's rarely inspired. Only by consciously switching gears back to my intuitive emotional response can I begin to visualize the illusory power an image could have in the foreign language of film.

I start by asking myself what drew me to want to take a photograph. Almost always, these particular things are a lesser part of the scene before my eyes. When I stood before a great sand dune on the ancient Silk Road in western China in 1980, I was unaware of the central fovea of my eyes darting back and forth between a sand dune and a meadow.

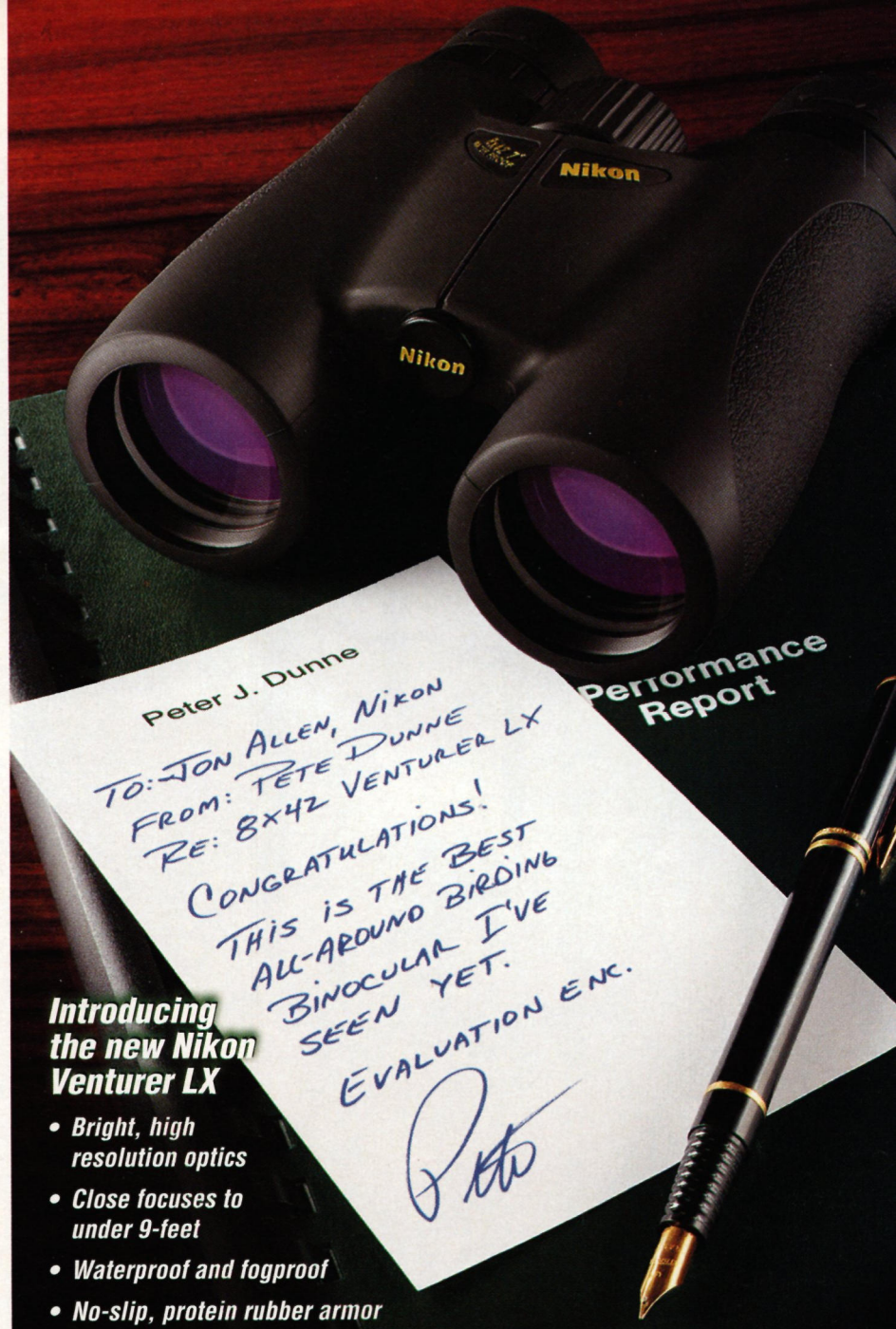
Yet I clearly sensed my emotional attraction to these subjects and realized that they would lose context and scale in a photograph that included extraneous subject matter. I decided to focus tightly on the dune with only a narrow strip of meadow to hint at its contrasting presence. Even a moderate amount of meadow in the foreground would have taken on added importance in two dimensions and overwhelmed the giant dune.

About 50 percent of the time, a first concept such as this produces my best photograph. When conditions allow, I patiently shoot many more concepts of a subject that has potential. Though the majority of these later compositions don't work as well, one of them often turns out to be far more evocative. So it was when I waited to see if two riders in the distance would come close enough to the dune to give it scale.

Many people who saw this photograph in a 1981 *National Geographic* told me that at first glance it created a whole different scene in their minds. It seemed to be a snowfield or a small bluff of sand until spotting the tiny riders created an illusory jump in their perception. Only then did they feel an emotional response to a new and a different illusion.

The lesson of multiple illusions is that emotional content isn't inherent in a photograph. Like Narcissus, each of us imparts the illusory power of our own being onto the inanimate surface before our eyes. OP

Galen Rowell's Web address is
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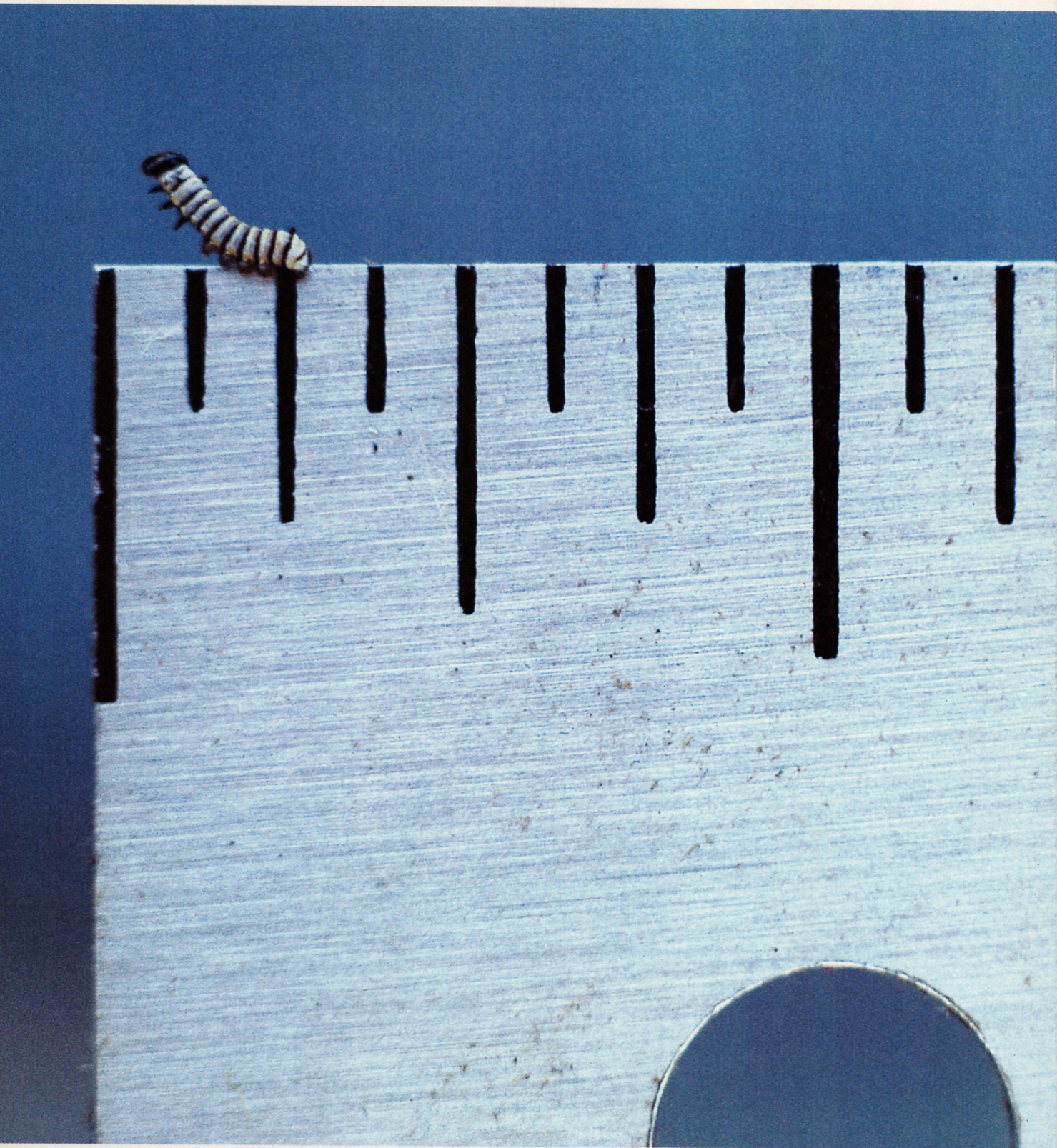
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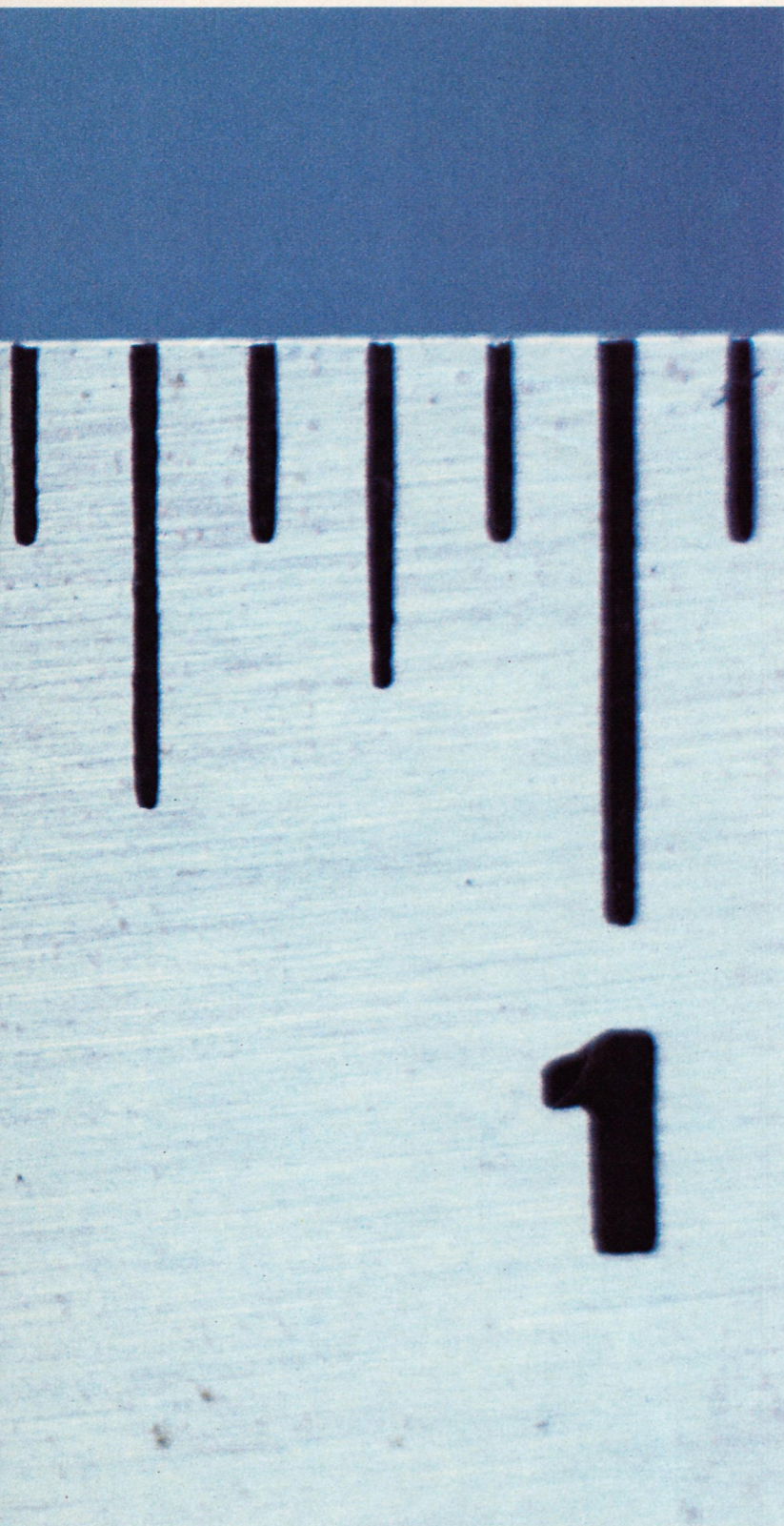
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A Sense Of Scale



BY FRANS LANTING



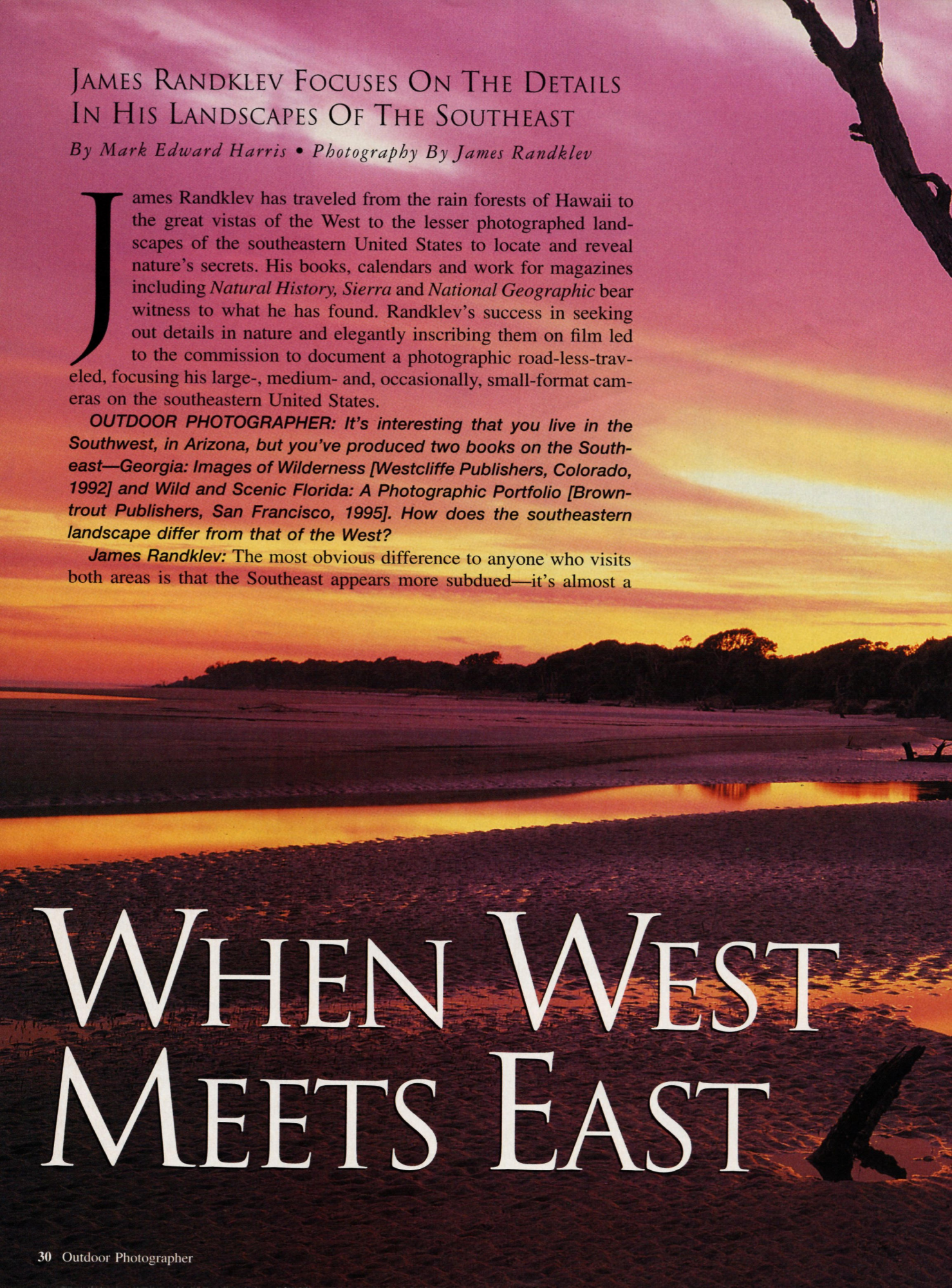
Monarch butterflies transcend their taxonomic status as merely one among more than 100 species of butterflies in the family of *Danainae*. They're heroes of the insect world, recognized worldwide because of their astonishing life history. Other butterflies migrate, too, but none cover such distances (up to 4000 miles), amass in such numbers (more than 100 million individuals partake in the annual journey) and travel to such a precise destination (from all over eastern North America to a single forest in central Mexico).

Faced with the challenge of making monarchs come alive for a museum exhibit, I raised them in my backyard. I witnessed the miracle of metamorphosis from earthbound caterpillar to free-flying butterfly—and was awed. New-born monarch caterpillars are barely larger than a grain of rice, yet all knowledge for their amazing journey is already in place genetically. I tried to think of a way to contrast the epic flight with the creature's humble beginnings. The field biologist's solution to giving scale to a study subject is to place something familiar next to it, such as a coin or a Swiss army knife. Effective, but boring as a photo.

I was staring at the patterning on a caterpillar when the idea suddenly hit me: Stripes—just as on a ruler. The image was born at that moment. Making the photo took more time. It involved finding a ruler of appropriate simplicity; placing it against a harmonizing background; putting it upright so that a monarch caterpillar would feel comfortable inching along on the top; making sure the number “one” showed in the photo, which establishes beyond a doubt that the diminutive traveler someday capable of finding its way over thousands of miles to a destination it has never been to starts out as a tiny squiggle a fraction of an inch long.

Serendipity made the concept come alive when the caterpillar arrived at the end of the ruler and lifted up. Testing the air? OP

Frans Lanting's Web site address is www.lanting.com.



JAMES RANDKLEV FOCUSES ON THE DETAILS IN HIS LANDSCAPES OF THE SOUTHEAST

By Mark Edward Harris • Photography By James Randklev

James Randklev has traveled from the rain forests of Hawaii to the great vistas of the West to the lesser photographed landscapes of the southeastern United States to locate and reveal nature's secrets. His books, calendars and work for magazines including *Natural History*, *Sierra* and *National Geographic* bear witness to what he has found. Randklev's success in seeking out details in nature and elegantly inscribing them on film led to the commission to document a photographic road-less-traveled, focusing his large-, medium- and, occasionally, small-format cameras on the southeastern United States.

OUTDOOR PHOTOGRAPHER: *It's interesting that you live in the Southwest, in Arizona, but you've produced two books on the Southeast—Georgia: Images of Wilderness [Westcliffe Publishers, Colorado, 1992] and Wild and Scenic Florida: A Photographic Portfolio [Browntrout Publishers, San Francisco, 1995]. How does the southeastern landscape differ from that of the West?*

James Randklev: The most obvious difference to anyone who visits both areas is that the Southeast appears more subdued—it's almost a

WHEN WEST MEETS EAST





two-dimensional landscape. From the air, the land looks like a sea of green, rich in plant life, with little to break the horizon. Out West, the scenic grandeur almost slaps you in the face, it's so three-dimensional. At times, you have elevation differences in a scene of 5000 to 10,000 feet. There's always something that impresses your eye right away, from massive glacial-carved valleys to windblown buttes.

The Southeast, however, is more muted. Your eye is forced to look from the horizon to your feet. It challenges a photographer to pay attention to what's right before him or her. You become more aware of details.

OP: *Did you have to adjust your working methodology?*

Randklev: With photographing anything, you really have to get to know it first. Out West, photographers tend to be more independent. They know where the major scenic areas are. They simply have to go there and experience it for themselves.

In the Southeast, I tried to use that same philosophy and fell flat. I realized it was crucial to get connected with people. The Georgia Conservancy and the Nature Conservancy of both Florida and Georgia were absolutely essential in my finding so many of the unique spots.

OP: *How do Florida and Georgia compare geographically?*

Randklev: You'd think they would pretty much be the same, but they're not. Georgia has much more of a diverse landscape than Florida. Florida is a beautiful state with an incredible coastline and an interior of diverse flora and fauna. Georgia, however, was a big surprise. When I first started working on the book, I photographed a tiny little area in the extreme north-west corner called Cloudland Canyon. Standing on the rim looking down almost 1000 feet, I couldn't believe this was part of the Peach Tree State.

OP: *How did the Georgia project initially come about?*

Randklev: I was working with Westcliffe Publishers as a teacher for its summer workshops. John Fielder, owner of the company, organized these great workshops near Crested Butte, Colo. There were about eight or 10 of us primarily large-format landscape photographers, including Carr Clifton, Larry Ulrich, Jeff Gnass, Steve Ter-

rill, to name a few, plus myself. That experience gave me the opportunity to get to know John and the direction of his publishing at the time, which was to do books on states, really showing off the scenic grandeur of each state.

Fielder had many books on Colorado, and many of the western states had already been committed to other photographers. There were about four or five states they were considering to publish, Georgia being one of them. I had read a fascinating article years ago about the Barrier Islands in Georgia—not only its history, from the time it was inhabited by the Guale Indians, but the plantation development and the natural history of the islands themselves. Even though they're just a few miles offshore, their remoteness made them feel light years away from the



The Southeast can be a challenge if you're used to dramatic western mountain landscapes. Randklev learned to rely on the wisdom and experience of local guides to find the unique places to photograph for his book on Georgia. OPENING SPREAD: The Barrier Islands of Georgia are unique and remote subjects for photographers willing to explore a subtle landscape. LEFT: With a relatively flat landscape like this, try examining the space from the horizon to your feet. ABOVE: Barrier Island flora and a sunset make a dramatic image.



mainland. That was one of the natural treasures this state offered that convinced me to photograph Georgia.

OP: *You divided the Georgia book into six geographic regions. How did you decide on this approach to such a broad area?*

Randklev: Dr. Eugene Odum, professor emeritus at the University of Georgia, spoke to me about the six physiographic areas of Georgia: Valley and Plateau; Appalachian Mountains; Upper Coastal Plain; Lower Coastal Plain; and the Barrier Islands and Estuaries. He's considered the father of modern-day ecology. He has authored many textbooks on ecology, which are still being used in classrooms today.

It really made sense to divide the book's chapters into these headings. That gave me a direction of tackling

one area at a time and going back seasonally to make sure I could photograph some of the blooms and so forth. In all, the photography required six trips over the course of 2½ years.

OP: *What equipment did you bring with you?*

QUICK TIP

The big icon landscapes of the West are pretty easy to find. Good landscape opportunities in other areas such as the Southeast are sometimes tough to locate. Try the local Nature Conservancy. This organization works with private individuals and companies to preserve important ecosystems and often has some stunning properties.

Contact the Nature Conservancy at (703) 841-5300, www.tnc.org.

Randklev: I brought a Wista 45 SP field view camera with six lenses and a Pentax 6x7 with seven lenses. Having different focal lengths was imperative to help define each composition, whether it be a telephoto for a distant subject or a wide-angle to create a better depth of field. As far as filters go, I use primarily a UV or a slight warming filter like an 81A and, at times, a polarizer if it's necessary to reduce reflections such as the glare coming off wet rocks in a waterfall.

OP: *What would dictate your usage of medium- versus large-format?*

Randklev: My medium-format Pentax 6x7 is quite convenient for doing detail and macro work. I tried to use the 4x5 for most of the Georgia book. The Florida book, however, was different in its scope. I employed four different camera formats, including a



Fuji 6x17cm panoramic camera. I didn't photograph just the natural landscape, but included many historic sites, as well as lighthouses, architecture and wildlife, for which I used a Nikon 35mm system. Smaller formats do have their advantages when working in rapidly changing conditions.

OP: *What impressed you most about Florida?*

Randklev: There's no place like Florida because of its varied length of coastline. I particularly liked the Gulf side, with its dunes of sea oats and island keys. Bird life was impressive, and the Atlantic side has several outstanding wildlife refuges. What amazed me were the variations in the color of the ocean, from green to azure to turquoise. A polarizer really helped bring out the colors in the water.

OP: *What type of film did you use?*

Randklev: Fujichrome Velvia rated at ISO 40. Under some situations, either wildlife or aerials especially, I used Provia pushed a stop and a half.

OP: *What prompted your initial interest in nature and photography?*

Randklev: I was born and raised in Port Angeles, which is the largest city on the Olympic Peninsula in Washington state. Olympic National Park was at my back door. Growing up in that environment laid the foundation for my sensitivity to nature. I was always outdoors and forever curious about nature and all its workings.

My photography started in the late '60s after I earned a degree in biology. I was in the army at Ft. Lewis, Wash., and the base had a craft center with a huge darkroom of 10 enlargers and all the chemistry and paper you could use. I'd return home to take

LEFT: *Randklev has included the key aspects of this Florida landscape and brought them into this single image. ABOVE:* *The lack of dramatic, hit-you-over-the-head features in the Southeast forces you to look at other aspects of a scene such as the sky and framing possibilities like this. NEXT PAGE, LEFT:* *When you reduce a scene to its core elements, like the distant hammock and the sea of needlerush and cordgrass, you get a feel for the nature of the landscape. RIGHT:* *Dogwood blossoms in the fog create a tranquil image of muted colors.*

ALL IMAGES: Wista 4x5 or Pentax 67, Gitzo Tripod, Velvia or Provia



pictures of my adventures hiking with friends in the Olympic Mountains. Through a lot of trial and error, I learned photography. There were very few photo workshops available, so I had to be critical of my own work.

I moved to Southern California to take a job in pharmacology at the UCLA Medical Center. I ran the teaching lab and darkroom making prints and slides for the professors. On evenings and weekends, I began to learn color printing.

OP: How did you start getting your work published?

Randklev: I submitted work to the Sierra Club, which was one of the primary sources for new, unpublished nature photographers. It didn't have any restrictions, so it was a great opportunity to have your work showcased. I probably had more than 2000 large-format images before I had the guts to send them anything. To my surprise, that first year they selected eight images, including a cover. This was 1977, the same year I had my first magazine cover on *Backpacker*, which

received an Art Director's Award. All this helped boost my ego to work even harder. Since then, I've published over 104 calendars of my own work.

OP: How did you make the transition to full-time photographer?

Randklev: The impetus to really get off my duff and commit myself full-time to photography was the Georgia book. That was early 1990. I left a 20-year career at UCLA and never looked back.

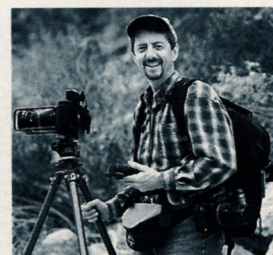
OP: You mentioned looking at published work was of great importance to your developing a critical eye. Which photographers influenced you?

Randklev: Eliot Porter was without a doubt my greatest influence. I used to spend hours looking through his books, studying his compositions, his use of color and lighting, all those elements that make a great photograph. I loved the way he captured reflected light off wet surfaces in his canyon work. It was mesmerizing and truly inspired me to work that much harder.

Though his scenics were great, I found his more intimate views even

more compelling. I couldn't help but be drawn into his world and start creating images that expressed this more selective view of nature.

In time, I found I could previsualize a scene much better and decide what it was that I really wanted to say about an area. Nature is rather chaotic. The toughest part of photography is to effectively eliminate all the distracting elements. I learned to open myself up to the environment and become a part of it rather than taking something away from it. I found I could say as much about a place of beauty on a smaller, composed scale than a larger, wider viewpoint. **OP**



James Randklev



Ten Tips to make the skies in your scenics more effective

The Sky's The



Tip 1 ▲

*If there's an amazing sky,
include a lot of it*

This should sound rather obvious, but don't forget to look at the sky itself. Good skies, combined with good foregrounds, yield good opportunities. And check out the clouds themselves for shapes and forms. Booming cumulus clouds are very dramatic. Fleecy, high-altitude clouds are more subtle, but they can be equally interesting. You might want to pick up a weather field guide so you can identify all those different kinds of clouds.

Tip 2 ► *Use a polarizing*

Polarizers are well-known for making the blue sky record on film as a saturated, dark blue. Most of the current E-6 films (Fujichrome Velvia and Sensia and Kodak E100S and E100SW) already have saturated colors, so don't overdo the use of a polarizer. After all, you don't have to turn a polarizer until it's at the very strongest effect. Don't expect a polarizer to improve a gray, overcast sky—it will have no effect whatsoever.

Polarizers exhibit their strongest effect on clear, blue skies when used at a right angle to the sun's axis. Point your index finger at the sun, then extend your thumb at a 90° angle to your finger, like a child's imitation play pistol. Keep your index finger pointed at the sun and rotate your wrist; your thumb will travel in a plane across

Limit



Text And Photography By John Shaw

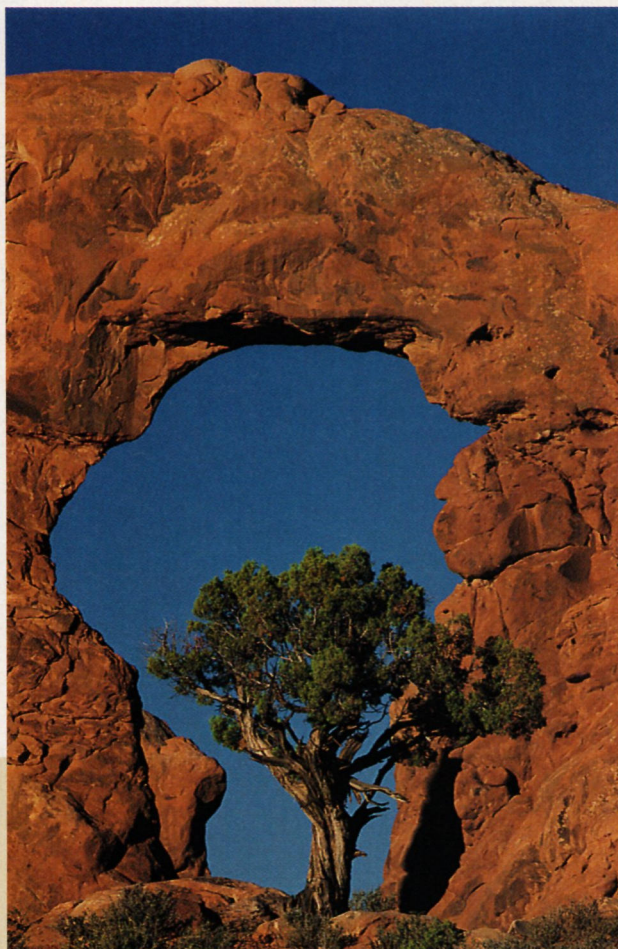
We've all heard the old saying many times: "The sky's the limit." But in terms of photography, we definitely don't want the sky to be a limiting factor of our pictures. When we include the sky in the frame, we want it to be a positive addition to our compositions, not a detraction in any way. Here are 10 suggestions to help you in the field.

filter, but use it carefully

the sky, which is the area of maximum polarization, the area which will darken the most.

Wide-angle lenses accentuate this band of polarization because they "see" so much of the sky. Consider a 24mm lens, which has a picture angle of about 84°. Shoot through a polarizer, and one part of the frame might record as a deep blue polarized sky while the other side will exhibit little polarization effect. This isn't a polarizer problem, but rather a lens coverage problem.

If the graduated tone in the sky bothers you, there are several possible solutions. One is to use your wide-angle lens in a vertical composition rather than a horizontal one. In effect, this cuts down the picture angle, limiting the angle of view across the sky and, consequently,



reducing the shift in polarization. Or shoot with a longer focal length lens. Once you get to about 135mm or longer, the lens' sky coverage is narrow enough that a polarizer's effect will be quite uniform.

Polarizers are available in both linear and circular models (both are round filters), but most current AF cameras need the latter to meter correctly. Usually, I determine if I want to use a polarizer by simply looking through the filter itself while I'm holding it up to my eye.



◀ Tip 3

If you have a blank, featureless sky, crop tightly

In compositional terms, a blank, featureless sky is extremely difficult to handle since nothing is going on up there. The worst possible thing you can do is let that area of a single, dull tonality take up a lot of the photographic frame. If there are no clouds in the sky or silhouetted objects rising above the horizon, then crop tightly to limit the sky area you include. Don't let that cloudless blue sky or the even-toned sky at twilight and dawn take up half the frame. Emphasize the lines, shapes and forms in the foreground and include just a sliver of sky.



Tip 4 ▶ *Shoot in bad weather*

In photographic terms, bad weather is often good weather since it can offer moody, dramatic skies. I'm not suggesting that you go out and try to photograph in the pouring rain or driving snow, but just before and after storms the sky can be spectacular: the slate gray of distant storm clouds, the lines of rain reaching from cloud to ground and sky phenomena such as rainbows or sundogs.

To enhance a rainbow, try using your polarizer. You'll dis-

cover you can either wipe out the rainbow totally (but why you'd want to get rid of a rainbow, I can't imagine) or emphasize it dramatically. Turn your polarizer as you view through the lens until you see the effect you like. By the way, the use of one of the "rainbow" effect filters is usually easily spotted. Real rainbows form in an arc 42° around a point directly opposite the sun when the sun is fairly low in the sky. I've seen too many "rainbow" shots taken at high noon on a clear, cloudless, day—impossible to say the least.

Tip 5 ▶ *Make the sun or moon stand out in the frame*

Ever wonder how those shots are taken showing a large sun or moon image? Well, there are only two ways to make any portion of a picture appear larger. One is to get closer to the subject (just kidding here; space travel isn't an option for most of us). The other is to use a long focal length lens. If you want both the foreground and the celestial object in focus, you'll need a "foreground" at some distance from your position. After all, you need enough depth of field to cover all the way out to infinity focus, yet a shutter speed fast enough to stop the apparent movement of the sun or moon.

A quick tip: Whenever you photograph the sun or moon, it will appear at roughly 1mm diameter actual image size on the film for every 100mm of focal length you use. For example, if you want the moon to be about 3mm in diameter on film, shoot with

a 300mm lens. A 500mm lens gives about a 5mm diameter sun. You can see why shooting with a 50mm normal lens is so often disappointing; the resulting sun or moon image records quite tiny on the film at roughly 1/2mm in diameter.

This rule of thumb works regardless of the film format you're using, whether 35mm, 2 1/4 roll film or 4x5. A 5mm diameter sun image just appears a lot larger on a 35mm slide with its 1x1 1/2-inch dimension than on a sheet of 4x5 film.

Be careful about double-exposing the moon into your skies. Both the moon and the Earth are lit by the same light source, our sun. The direction of the light falling on both should be the same. However, I've seen pictures of the full moon hanging over a sidelit foreground landscape, a physical impossibility on this planet. Must be a shot from another galaxy's planet by an alien photographer.

Tip 6 ► *Make a sunstar*

You can easily add a starburst effect to any picture in which the sun is included. Hide most of the sun behind a subject—a tree or rock, for example—then position yourself so that only a tiny point source of light peeks out. Stop your lens down as far as it will go, to the smallest aperture possible, and shoot. You'll automatically get that sunstar effect as a minute bit of light leaks around the diaphragm blades in your lens.

This is very easy to do with a wide-angle lens, which all by itself effectively turns the sun into a point source of light. It's slightly harder to get that sunstar with a long focal length lens, as you must position the camera far more precisely.



Tip 7 ► *Silhouette a subject against the dawn or twilight sky*

At dawn and twilight, the sky often takes on beautiful shades of purple and orange. Any foreground object—a tree, rock formation or cactus, for example—will be sharply delineated against this color.

Obviously, you'll want to use a tripod as the exposure times will be far beyond what you can safely hand-hold a camera. The only real problem you'll have is determining the exposure. Here's the solution: Spot meter the brightest area of the sky itself and place it at least one stop lighter than the meter reading. This ensures that the silhouetted object will be visible. With dark skies,

opening up one stop will have no effect whatsoever on the black silhouette of the foreground and it will remain pure black.

With a "light" sky, the foreground will show up. If you use a medium-toned placement for the sky exposure, the object and the sky will be too close in tonality and will tend to blend together. This is especially true if you're shooting with a wide-angle lens. The edges of the frame will naturally be darker than the center since the edges are effectively off-axis to the light source; consequently, any silhouetted object just disappears except in the center of the frame.





Tip 8 ▲ *You can photograph gray skies, but not white skies*

The worst sky of all to include in your picture is a pure white, overcast sky. High overcast is a great light for details, but a rotten light for scenic photos that include the sky.

However, gray skies are another story. The stark, gray skies of a bitter winter day can actually help convey the feeling of cold, especially with a winter sun burning through the clouds. To my

eye, a gray winter sky works best when the rest of the subject is monochromatic black and white. In essence, you're shooting a black-and-white picture, but using color film. In the summer, try to include as little as possible of a mediocre gray sky unless there are variations in tonality such as subtle shades of gray in the sky.

Tip 9 ► *Keep the horizon level*

Regardless of how spectacular your sky may be, a "leaning" picture will be far weaker than one where the horizon line is square with the world. We've all seen those shots that have a pronounced left or right tilt to them. I find myself holding my breath, waiting for the subject to slide off to one side and out of the frame.

One reason you get tilted horizons is that most tripods are too short. Consequently you have to shoot from a slightly bent-over position, leaning your head one way or the other to see through the viewfinder. If you use your right eye to view through the camera, you'll tip your head slightly to the left. Use your left eye, and your head will be cocked to the right. Whichever way you tilt your head, that side of the horizon will most likely end up dropped down slightly lower.

There are some quick and easy solutions. Once you compose a shot using whichever eye you normally do to focus, view your composition again but with your other eye. You'll immediately notice any tilt. Changing the focusing screen in your camera to an architectural grid screen, with etched lines to use as a reference, is also a good idea. Best of all, once you've set up a shot, take a giant step backwards, away from your tripod. Look at the camera back. You'll immediately see if it's square with the world. If the camera is level, so is your photograph.

Tip 10 ►

Watch out for lens flare and airplane contrails

Lens flare is a killer for scenic photography. Suddenly it seems like you're recording UFOs streaking across the frame. This is especially true if you're shooting with a zoom lens. Zooms are optically very complex, incorporating many elements so, consequently, light bounces around inside and between all the optical components. Add a filter and you only compound the problem as you're adding one more element to the optical light path.

Here's the fix: Purchase the correct lens hood matched to the focal lengths of the zoom and always use it. By the way, I'd personally question the use of that filter; you probably have a UV or skylight filter on to protect the lens, but from what are you protecting it? If you can't name a specific problem that the filter is solving, take it off the lens. You'll have to take it off anyway if you want to use a polarizer since stacking filters is usually an invitation to vignetted, unsharp results.

Jet contrails, those annoying "linear clouds" that seem to appear just after you've set up your tripod and composed, are a problem with no real solution. Sometimes you're immediately aware of contrails, sometimes you hear the plane and search the sky, and sometimes, well, I've gotten film back and am convinced that my lab put that contrail into the picture because I sure didn't see it.

OP

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toward the trees lends a special graphic element to the image.

A particularly inventive designer of geometric patterns is ever-present erosion. In the course of thousands of years, wind, water, thaw-frost changes and gravity have sculpted natural works of art.

Don't be afraid to include graphic human-made elements in the natural landscape. They often represent perfect examples of form and composition. Indeed, the scope of ordered geometric forms and structures can exceed that in natural scenics. Parks, flower beds, fences, jetties, railings and vineyards are all subjects for appealing landscape compositions.

Color, with its powerful messages, is one of my favorite elements in landscape photography. In the image of

the moon between the rocks, I photographed the crack between rocks in front light shortly before sunset with a 600mm tele lens. Simple front light was the best choice because it illuminated the red rocks evenly. I pre-

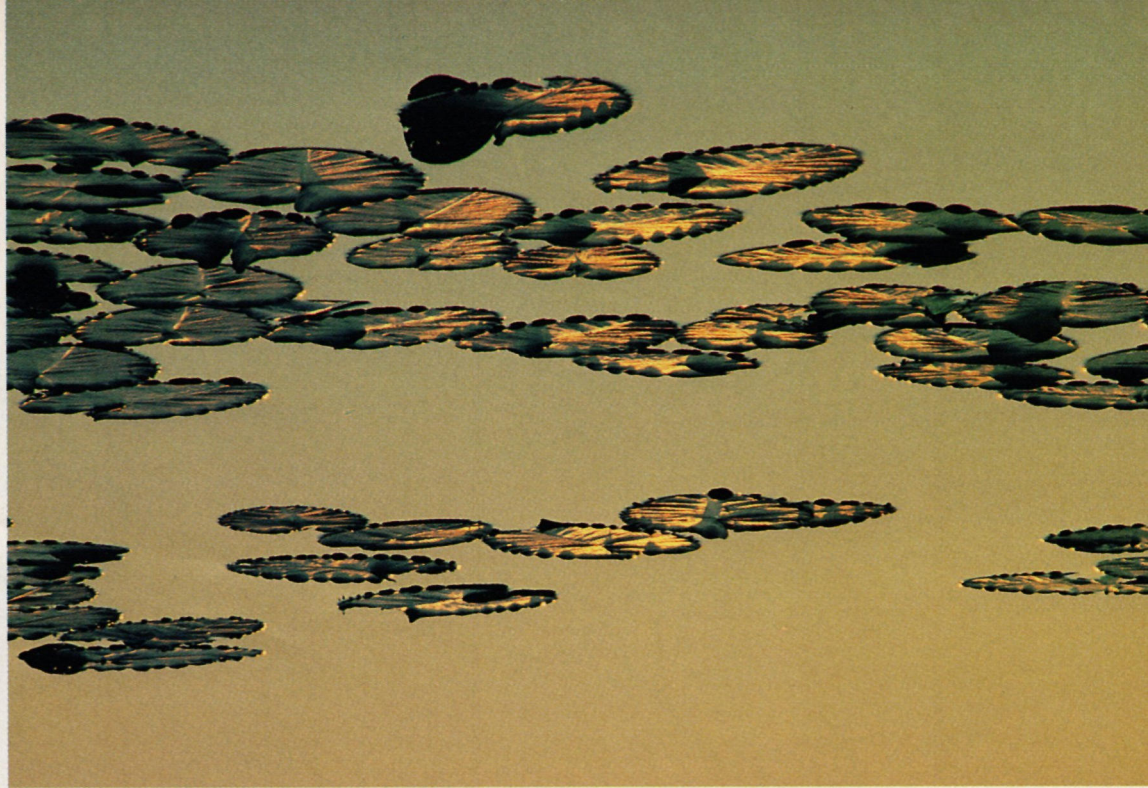
QUICK TIP

The moon makes a great element in a graphic landscape. To expose the moon properly so you can make out the texture of its surface, use the Sunny 16 rule (1/ISO at $f/16$). This works because it's always a bright, sunny day on the moon. If you're using slide film, try bracketing a stop on either side to be sure that you get the exposure right on.

ferred to have the color of the rocks as even as the blue of the sky. I composed the crack such that both its lower and upper ends were invisible, creating the illusion of endless sky in either direction. A special touch was accomplished by the inclusion of the moon, which I was able to position next to a slight indentation in the wall after a dangerous climbing feat across a maze of jumbled boulders.

Among my favorite graphic elements are silhouette images of bizarre trees or plants. For background, I often choose the clear evening sky several minutes after sunset, when the colors range from dark purple to bright orange. Take care to photograph the plants in aesthetic settings without overlapping in order to avoid chaotic results.

(Cont'd on page 93)



OPENING SPREAD, TOP LEFT: The slightly gibbous moon and the curves of the rock faces create a simple geometric composition. **BOTTOM LEFT:** The pattern of the shadows on the dunes creates a zig-zag of light and dark areas. **RIGHT:** Try dramatic side and back lighting for graphic landscapes like this one of a tree and sand dunes. **ABOVE, LEFT:** The poplar tree is emphasized by direct sunlight while the rock faces are in shade. **TOP:** Here, the sky was eliminated to draw attention to the graphic composition of the lily pads. **ABOVE:** Be very selective about what you include in the shot. Each of the Quiver trees adds to the photograph without adding undue clutter.

MOON AND ROCKS: Nikon F4s, Nikkor 600mm; DUNES: Nikon F5, Nikkor 80-200mm; DUNES AND TREE: Nikon F4s, Nikkor 80-200mm; ROCK FACES AND TREE: Nikon F5, Nikkor 80-200mm; LILY PADS: Nikon F4s, Nikkor 300mm; QUIVER TREES: Nikon F4s, Nikkor 80-200mm; ALL IMAGES: Fujichrome Velvia



GO FOR THE
DREAM



Robert Buelteman refused to take no for an answer
and was finally given access to document a rare, pristine landscape

By Lewis Kemper • Photography By Robert Buelteman

Life can sometimes be ironic. In the search for beauty, you may venture to exotic locales, while other times you have to look no farther than your own backyard. Some days, the pursuit of your livelihood can be in direct contrast with the pursuit of your artistic or spiritual quests. The balance of all these elements can lead to a very rewarding life. Robert Buelteman grew up on the San Francisco Peninsula and spent his life in the area. For the past 21 years, he has worked there as a commercial photographer. Aside from his commercial work, Buelteman has been actively pursuing his art by working on personal projects, creating portfolios of fine-art black-and-white images that he displays



and sells. He finds that the balance between the two pursuits enhances each of his separate goals.

While not many artists like to admit that they do commercial work, Buelteman is at ease with his choices: "There's a real kind of stigma for those of us who love to make art photographs, like we don't want to cop to the fact that we work commercially, as though it's a bad word. I tell people every chance I get that my doing studio work and my doing executive portraits and the rest—that commercial work shows up in that book of mine.

"Similarly, the freedom and the joy of making photographs from my heart shows up in the work I do for Nestlé or Bank of America and my other clients. There isn't this dividing wall that says I'm going to wear beads and sandals one day and commune with the world and then wear a tie the next day. This dividing line may be in our minds, but it's not the way it works in the real world."

There are certain aspects of Buelteman's life that remind me of Ansel Adams. Adams, too, had a commercial photography business that sup-

ported his family while he was pursuing his love of photographing Yosemite and the Sierra Nevada. And both photographers turned their art into a means of communication and preservation of the lands that are important to them.

Nominated for the Sierra Club's prestigious Ansel Adams Award for Conservation Photography, Buelteman was both excited and apprehensive. "I've spent a lot of time trying to distance my work from Ansel Adams. My work isn't about place and time, but about life, about being alive, about

*Black-and-white is a great medium to explore. Its popular resurgence means that you can easily find traditional black-and-white films as well as color films that work like black-and-white (these have an added convenience in that you can have the film processed at your local color lab). Robert Buelteman chose black-and-white for his Unseen Peninsula project because it offers him some different creativity than color. **OPENING SPREAD:** Both images have dreamy, surreal subjects that are accentuated by shooting them in black-and-white. **LEFT:** The San Francisco Bay area is well-known for its thick fog. It provides a black-and-white shooter with an excellent opportunity to explore the textures in the clouds, both along the ground and in the sky. **RIGHT:** Buelteman shoots with a square-format Hasselblad. The square can give you interesting compositional chances like this. **BELOW:** Black-and-white photography can give you a new appreciation of the subtle tonalities in a landscape.*

ALL IMAGES: Hasselblad camera and lenses, Kodak T Max 100



being awake to the central beauty that is our world.” For Buelteman, photography is a means for expressing his fundamental beliefs of life.

As a child, Buelteman dreamt of exploring the area behind The Fence, which surrounds 23,000 acres of peninsula land that’s undeveloped except for the reservoirs within its boundary. It’s controlled by the San Francisco Water Department and is the repository for the drinking water of 2.3 million people in the San Francisco Bay area. Access to the public has been restricted for seven decades. Buelteman wanted to photograph within the boundaries of The Fence, to spend countless hours searching, composing and capturing the beauty of the land. He envisioned a portfolio of fine-art black-and-white prints that he’d exhibit locally.

For years, Buelteman worked to obtain permission to gain access to the watershed. It was an uphill battle. The water agency had been turning down requests from people for years. In order to gain access to closed or restricted areas, Buelteman has these suggestions. First, he says, “No one



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THE DREAM

will respect you unless you respect yourself. You have to approach them on a professional level with a formal proposal—thought out, written out, typed or immaculately printed—these steps will help you gain respect.” While these steps may not guarantee that you’ll be accepted, Buelteman says at least you’ll be listened to.

After three years, Buelteman heard he’d be granted a permit. He finally thought he had the officials convinced of what he wanted to do, so he went to the offices to pick up his pass.

“What day do you want your pass for?” he was asked. Buelteman was shocked. Again he explained about the portfolio he wanted to create and again was asked, “What day?” He explained that his previous portfolio had taken six years to complete, and he was given a permit—for a day.

Buelteman realized that getting his foot in the door would help, so he took the permit and made some pictures. He used these images to help him get his permit extended.

Through a mutual acquaintance of one of his commercial accounts, he was introduced to a perfect agency connection who also turned out to be a photographer! They hit it off “famously.” His next permit was for a week, the longest pass that had ever been given to anybody. Buelteman renewed his permit for eight years! Finally, he was on the other side of The Fence.

As a result, Buelteman made more than 6000 images of which 50 appear in his book, *The Unseen Peninsula*, beautifully photographed in black-and-white using an old Hasselblad camera made in 1954 and old uncoated 50mm, 80mm, 120mm, 150mm and 500mm lenses. Buelteman is certainly one who doesn’t believe that equipment makes the photographer. Many photographers who shoot with the square format prefer to crop their images to the familiar rectangle, but not Buelteman. His images are framed perfectly within the square format of the original negative.

All the images were shot on Kodak T Max 100 film. When asked about his film choice, Buelteman says, “I use one film because I know how it works. I believe that you should stick

with one film until you master it.”

Buelteman really believes in study. He has taken classes in trigonometry of optics, a couple of years of chemistry and sensitometry classes. He studied with Phil Davis, a noted black-and-white photographer and teacher, learning the Davis Incident Light System of exposure and printing. It’s the practices he has learned from Davis that allows him to control the exquisite range of tonality in his prints.

In the introduction to Buelteman’s book, Harold Gilliam, a noted environmental writer states: “Within these images are unspoken meanings. Like Walt Whitman, Buelteman is capable of seeing the whole universe through a blade of grass or a single leaf. Through focusing on details, this artist captures the spirit and mood of this extraordinary place, a microcosm of natural California that has been miraculously preserved in the midst of a booming metropolitan region....”

All you have to do is leaf through the pages of *The Unseen Peninsula* and you’ll agree. From “Willow,” the delicate imagery of a single branch suspended over the bubbly froth of an adjacent creek to the majesty and strength of the towering redwoods in the image he called “Fairy Ring,” the spirit of both the land and the photographer become evident.

Buelteman sums up his beliefs about the values he tries to express through his art: “In a world fascinated by the grotesque, the perverse and the violent, this book stands as my tribute to the things I prefer to celebrate: That life is good, that we’re whole and that our children have a future.”

Buelteman can’t find that conversation anywhere else at present; he doesn’t find it in his religion, in his kids’ school, in the business community and certainly nowhere in the radar of the political horizon. Buelteman believes that his work is more about the inner human landscape than the outdoor landscape from which the images are derived. There’s a sense of being complete, a sense that life matters and that there’s a purpose to life and that the design is intact. **OP**

Robert Buelteman’s book, *The Unseen Peninsula*, is available through direct mail from Oakrise Publications, (800) 886-7336.



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Capture kayakers and canoeists
from raging rivers to tranquil lakes
with Henry Georgi's advice

By Christopher Robinson

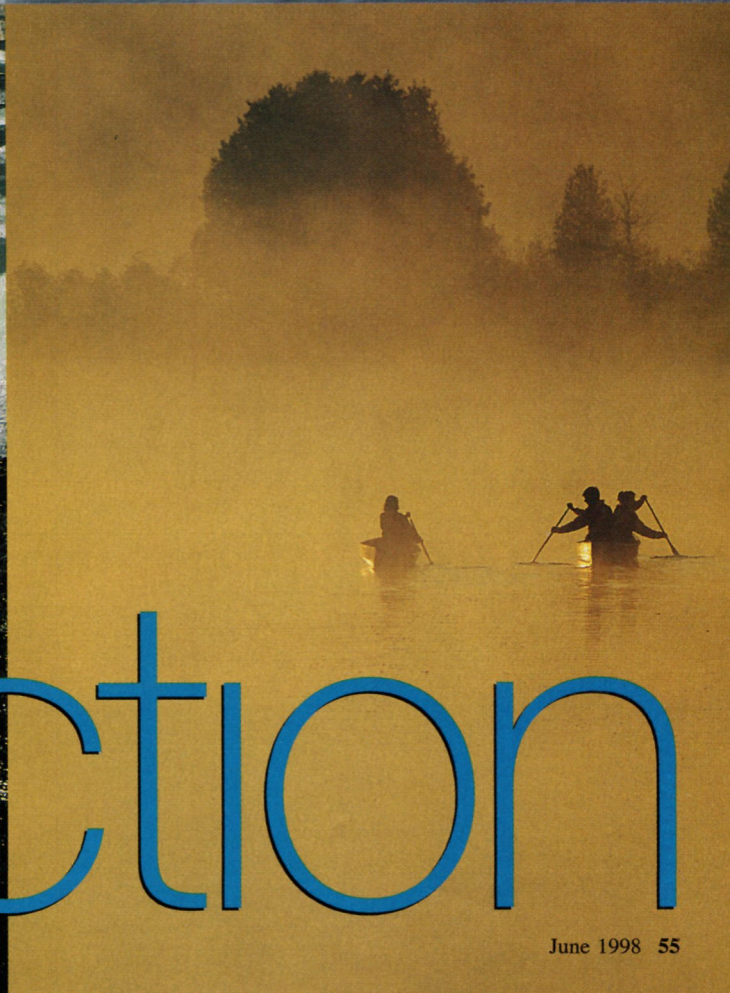
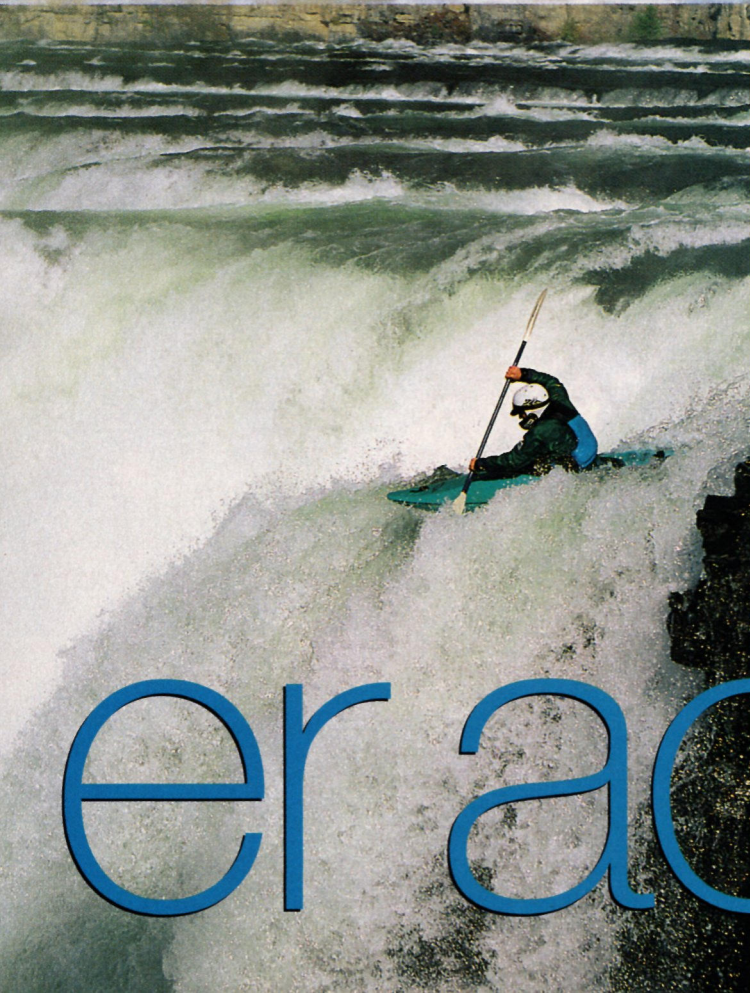
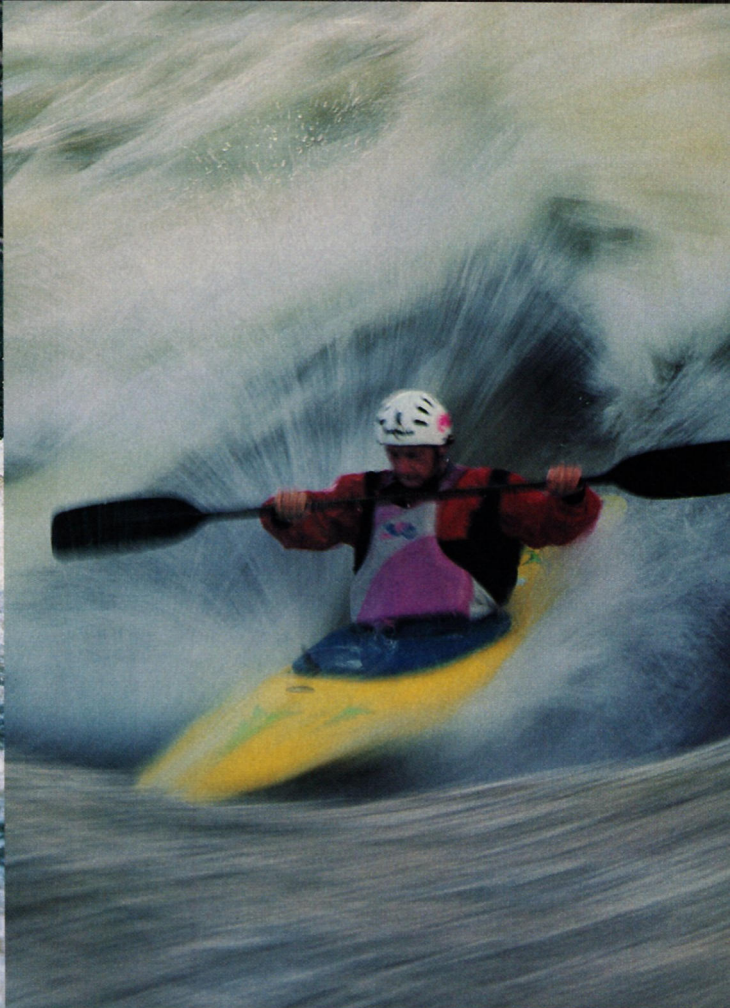
Photography By Henry Georgi

When Henry Georgi set out to make the jump from an amateur to a professional photographer earning his living shooting pictures, he became a ski photographer. After all, skiing was something that he loved to do and he had become quite adept at shooting good ski action on the slopes.

However, it wasn't long into that first year as a pro that he realized that it was going to take more than just skiing to keep him solvent. The problem was that there were a lot of well-established ski photographers already and he was having a tough time getting both work and a decent wage. So Georgi looked around for an aspect of photography that he found interesting and that would give him a chance to quickly become one of the best known shooters doing it.

Enter canoeing and kayaking. Georgi has always been drawn to the water and water sports. He was raised in Canada along the Ottawa River. It was the

swiftwat



er action



Keeping Your Gear Water-Safe

Shooting near the water, whether it's whitewater kayaking or pastoral lakeside canoeing, can be hazardous to your photography gear. The water is an especially unfriendly element to a camera and lenses. Using the right case and a low-cost housing will protect your equipment and allow you to pursue the shots without worry.

First, a good waterproof hard case is ideal for hauling your complete setup. Henry Georgi likes to use a Pelican case, but there are a number of other manufacturers who make fine cases. Cases from Dorskocil, Tundra Sea King, York and others will all do the job. In addition to protecting the gear from bumps on rock surfaces, these cases also float (in case you should fall in).

Next, a simple housing will keep your camera protected while you're shooting. There are specialty housings made for serious underwater use, but they're very expensive and really heavy. An Ewa Marine housing is easy on your bank account. It's a clear plastic and encloses the camera and lens. Georgi likes to use these types of housings when shooting along the edge of a rushing river or when he's actually out on the water in a canoe or kayak. **Contact:** Dorskocil, (817) 467-5116; Ewa Marine, (516) 242-6801; Pelican Products, (310) 326-4700; Tundra Sea King, (303) 399-7493; York Pack, (207) 846-1205.



Ottawa, with its intense, short rapids, that taught him how to whitewater canoe and kayak.

Early on as a working professional, he went home to the Ottawa River where he got a contract with a local rafting operator to shoot photos of the rafts as they barreled through the rapids. He'd take the pictures, then have them quickly processed and printed so that finished prints were ready for the people when they got off the river. While shooting for the rafting companies became a growing business for Georgi, he was quick to see that there was a

niche to be filled with the kayakers who were omnipresent on the river.

From his experience as a kayaker, Georgi had a good feel for what the boaters were doing on the river. The proliferation of so-called "play boating" and rodeo kayaking involves lots of experimenting and maneuvering on different features of the river for extended periods of time. As Georgi says, "We used to do our best to stay out and away from holes. Now the play boaters seek them out and spend a half-hour fooling around in them."

For photographers, this play-boating may be the best development to come down the river since multi-colored boats and life vests. As Georgi has discovered, you can find a good spot where the paddlers are "playing." From there you can kind of hang out, compose, focus and generally take your time. The kayakers are essentially staying in the same place. Also, the dramatic increase in play-boating has given rise to "rodeo" competitions. In the spring and summer, you can find large groups of brightly clad play-boaters ready to get wet and wild.

In addition to the big whitewater action, there are the more flat, tranquil water images that can be emotionally evocative. Again, Georgi's personal experiences canoeing on lakes has given him a perspective that translates into his photographs. Being out

on a lake in a canoe in the early-morning mist is a beautiful, quiet experience that can be quite magical. Georgi has been able to capture the moment and the feeling on film very successfully. His photographs show a relationship between people and the majestic landscape. He considers these some of his trademark images and feels very strongly about them.

Georgi prefers to travel light. He carries what, on the surface anyway, seems to be a minimalist collection of gear—a Canon EOS-1N and a couple of Canon lenses. When it comes to a telephoto zoom, he prefers to carry the 80-200mm *f*/4. While many pros have traditionally preferred a faster *f*/2.8 or even *f*/2 if they can get it, Georgi gladly sacrifices the extra stop of lens speed in favor of the reduced weight. "These new zooms are just so good," he says. "They're like the regular-focus lenses used to be."

Considering his film of choice, the lost stop in lens speed really doesn't matter at all. "The new Kodak E200 gives me back that *f*-stop, and I'm comfortable pushing it to 400 for another full stop." He carries all of his gear in a protective Pelican hard case.

Shooting whitewater kayaking, canoeing and rafting can be fairly easy to get into with just the equipment that you have now. Most sports-action photography can require a substantial invest-

OPENING SPREAD, LEFT: *If you want to try shooting from a boat like this, be sure that your camera is protected in a housing of some kind.* **RIGHT, CLOCKWISE FROM TOP LEFT:** *A high shutter speed will freeze fast-moving action; Try Georgi's "stationary pan" technique to get the look of rushing water; Early-morning mist gives you an opportunity to explore tranquil moments on the water; You can safely get onto rocks that jut into the river to bring you close to serious action.* **LEFT:** *From the water, a canyon takes on an entirely new perspective.*

ALL IMAGES: Canon EOS-1N, Canon 80-200mm EF, 28-70mm EF, 17-35mm EF, Kodak E200 and E100SW

Image by Daryl Benson

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SWIFTWATER ACTION

ment in fast telephoto lenses and other specialized gear. On the other hand, even for a pro like Georgi, whitewater action is fairly equipment non-intensive. That's because you probably already have most of the gear that you might need and the lenses you'd want to use.

The typical outdoor photographer's outfit includes a wide-angle, a normal-zoom and a longer tele-zoom (a 70-210mm or 100-300mm, for instance). This is the same setup that you use for whitewater action. The reason you can get professional-caliber images without a ton of really expensive, specialized equipment is because you can get nice and close to the action. Georgi shoots most of his whitewater action from rocks that jut out into the river's flow and put him very close to the boaters, yet all the while he's dry, safe and comfortable.

Georgi has some great advice for any aspiring photographer. He started getting into canoe and kayak photography because he knew the activities very well. It gave him an edge. "Shoot what you know about. The more you know about a sport, the more you'll be able to capture the essence of it."

This is what can help separate you and your photography from the large number of individuals snapping away on a regular basis. This translates to all aspects of photography. Get out and give it a try. **OP**

QUICK TIP

Stationary Panning

Action photographers pan the camera with the action while shooting the picture to help freeze the subject and blur the background. Henry Georgi uses a variation of this to get images of kayakers with blurry, rushing water. He calls it stationary panning (see the image on page 55). When you're photographing a kayaker playing around on a standing wave or other whitewater feature, use a tripod (or monopod) and a long exposure. The kayaker, or canoeist, will be stationary against a background of fast, flowing water.

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A photograph of a kangaroo standing on a dirt road in a desert landscape. The kangaroo is facing right, looking towards a wooden fence that runs along the right side of the road. The background is a hazy, arid landscape under a clear sky. The kangaroo has a brown and grey coat.

Mitsuaki Iwago
gets down
and dirty with
Australia's big
marsupials

*By James Lawrence
Photography By
Mitsuaki Iwago/
Minden Pictures*

Living On Kanga

As I watch a kangaroo standing straight up on its two hind legs along the ridge line of the red desert, I imagine its simple needs, and the difficulty of meeting those needs in this harsh land.

—Mitsuaki Iwago
from *Mitsuaki Iwago's
Kangaroos*

It's hard to imagine how kangaroos have survived through the aeons. They keep crashing into each other. Ask world-renowned Japanese wildlife photographer Mitsuaki Iwago. "One day I see a mother and her joey out from its pouch," Iwago remembers in his carefully measured English. "They are eating grass. I think, 'Oh, this is chance

to get close to them.' " Suddenly, something startles the mother from the side. She and the joey explode into motion—and collide headlong.

"It is like cartoons," Iwago says with a laugh. "I saw this many times. When they were frightened, they run and hit together, boom!" He smiles quietly, then slowly shakes his head. "I think



roo Time

I never understand this animal.”

Iwago, internationally celebrated for his animal photography since 1970, is famous for getting down and dirty during the photographing of his animal subjects. As with his internationally acclaimed *Serengeti: Natural Order On The African Plain* (Chronicle Books), the driving force behind his three years



LEFT: Iwago's image illustrates the major influence that ubiquitous high fences, erected to keep the high-jumping kangaroos out of ranch land, exert on their way of life. Many ranchers view the 'roos as dim-witted pests. ABOVE AND BELOW: Getting up-close portraits of a wild animal like this requires patience and understanding.





down under was to “make a book.”

“It was a chance to see most of the country,” the photographer remembers. Iwago’s travels (with family in tow) brought him into contact with everything from saltwater crocodiles to koalas.

Along the way, he ate large, grotesque worms called witchetty grub-dies (witchetty grubs) with the aborigines—raw—and found the taste abominable. “But I do it,” he adds cheerfully, “to make friends.”

Of all the bizarre animals he photographed in Australia, none got into his head more than the kangaroos. “I try to get all animals, but after two years, I became more interested in kangaroos.” The result was an exhaustive and stunning look into the austere life of the animal, *Mitsuaki Iwago’s Kangaroos* (Chronicle Books).

Deeper into his photographic quest, Iwago came to view the marsupial not only as national icon, but as a symbol of a land ravaged by the hand of man.

Imagine this: an America in which it’s commonplace for hunters to kill bald eagles by the millions—because they’re routinely regarded as pests.

That’s how Aussies see them: as overabundant, stupid vermin. The irony is that Australians are hoist by their own petard—unwitting victims of pastoralist ancestors who remade the spare desert landscape into a grazing paradise for their sheep and cattle. But those pastures were even more of a paradise for the hardy kangaroos, who could hop over any fence, out-nibble the domestic animals and better survive the cyclical, searing droughts. The result: a super-abundance of kangaroos—and a head-on threat to the livestock industry.

Now you know why more than five million red and gray kangaroos are legally “harvested” each year. Which brings us face-to-camera with Mitsuaki Iwago’s principal photographic challenge: Kangaroos have had

it up to here with humans.

“Especially in daytime,” says Iwago, who learned that kangaroos would rather run than do almost anything. Approach too fast, and the marsupial’s ears start to swivel around like radar. If it senses a presence, its entire body tenses. “Some run immediately at the first sound of a motor vehicle. Others turn and slowly hop away.”

The photographer’s resourceful solution was to drive toward the large, bipedal mammals in languorous zig zags or gradually closing circles.

Often, simply finding the kangaroos was a challenge. To escape the constant heat, they often languish in shallow depressions. Frustrated in his efforts to get up close and personal, Iwago went looking for help. Bring on the heli boys!

Heli boys is Aussie-speak for helicopter cowboys. In no time, Iwago was pointing directions to his pilot from the right seat of a Robertson R22



OPPOSITE PAGE: *This image was not the result of a happy coincidence. Iwago went back to the same spot for days before he got the photograph. **THIS PAGE:** Iwago spent long hours observing and learning kangaroo behavior—only then did images begin to emerge that captured the full scope of the marsupial's daily life.*

ALL IMAGES: Leica R2, R3 and R4 cameras, Leica lenses, Kodachrome 64 and Fujichrome Velvia

KANGAROO TIME

helicopter. Sometimes his perch was a two-seat ultralight aircraft. Rental rates are much cheaper in Australia than most other places, partly because big ranching outfits use small aircraft for tending to and driving livestock throughout the vast land.

Iwago took to the air like, well, like a bird. "I like the different perspective from the air. From above, kan-

garoos look unexpectedly white. On the ground, they seem redder." He surmised that the intense sun reflecting off the red earth actually deepened the red kangaroo's color.

Whether groundbound or in the air, Iwago found many mornings in the inland desert climate were shiveringly cold. He made a practice of dressing in layers, including gloves for holding his Leica camera. By noon, most days, the sun grew so strong that wear-

ing even a T-shirt was too much. When night fell, it was back to the layers.

Telephoto lenses in the range of 200mm to 800mm were standard equipment on Iwago's 35mm Leica SLRs. Tracking shots were made with 200mm and 400mm lengths. "I used more 800mm than with my lions book, as well as 600mm."

A tripod was a regular tool as well, although not exclusively. Iwago claims to be able to hand-hold 400mm and

QUICK TIP

Mitsuaki Iwago has made it a point for 25 years to never interact with his wildlife subjects by touching them. "That's changing behavior. Even with the lion cubs or a little orphan kangaroo joey that was so cute, though you want to hold and cuddle them. But, no. Even people who touch whales, I don't believe in that." Touch your subjects with your photography, and share it with the world.



600mm lenses as slow as $\frac{1}{30}$ sec., an impressive feat by any shooter's standards. "I take deep breaths: inhale, blow out, focus, boom." Then he adds with a chuckle, "Not all the shots come out sharp."

Iwago eschews filtration in deference to natural light and color. Twenty-five years of shooting in the wild have taught him to know his exposures for these conditions. "Sometimes it is difficult to capture this light. But many times it is easy. I think most experienced photographers know exposure. Many times my camera meter says to shoot at say, $f/2.8$ and $\frac{1}{250}$ sec. But I know this is not right."

To back up his intuition, he'll meter with a different body. Generally, the second body will confirm his instinct that the first camera's reading was off.

Iwago generally uses the in-camera meters on his Leica R2, R3 and R4 bodies, with an occasional backup from a hand-held meter. He usually measures the light from the entire frame, rather than just the subject, and never uses a gray card.

Given the impracticality of refrigerating film in a land where there was

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often no electricity or even running water made emulsive agonizing irrelevant. "I never care," Iwago says of such concerns. "I just shoot." He does confess to finding the coolest spot in the house, such as under a table, to stash his Kodachrome 64 and Fujichrome Velvia 50 slide films.

Getting the film to a lab was an equal exercise in faith. "I had many friends and associates who visited me from Japan. They would take the film back for me while I stayed to shoot. I had a hard time in the beginning of my career. I never know what I got. I have to guess and hope."

In one of his first assignments, Iwago's photos were developed, edited and run in a weekly magazine series in Japan. It was months before he saw the images. "The first time was when my photos were in print." The baptismal process honed his skills. Today, he has the confidence to know what he's getting without having to review the "take."

Beyond the technical considerations, there's an underlying awareness practiced by most nature shooters of assimilation to the environment. Iwago uses an all-encompassing term, *okite*: the natural order of things.

The secret is no secret at all. You just have to be—there. "Where I lived, if you want to wash clothes, you have to find old dead trees. Start a fire, heat the water. It can take all day. Just to shower, three hours. So you get to know the place. You look at the kangaroos. At first they seem slow because they live in kangaroo time, not human time. Only when you slow down, then you see them clearly for who they are."

In his book, Iwago describes the unglamorous hard work of being outside for a predawn shoot:

Tonight there is a full moon. I have always wanted to photograph the kangaroos at night. When I light them with the searchlight of my car, I realize that the red kangaroos are surprisingly near.... They seem to be less defensive at night.

The kangaroos are surprised at their own shadows dancing on the ground.... They try to escape by jumping so frenetically that they lose their balance and sway left and right attempting to stay upright.

At 4:00 a.m., the moon is white and still rides high in the sky. I would like to photograph (them) silhouetted

against the rising sun, so I move my car to a place where (they) often graze during the daytime.

I wait for sunrise and put my 600mm lens on (my car door camera mount). Now, it is up to the kangaroos to come here just as the sun rises from the horizon. When the sun finally rises, the kangaroos might not be here. Or, even though they are here, they might not be in appropriate positions.

At sunrise, the wind starts to pick

up. It shakes the car....and vibrates even the lens.

It took Iwago 10 consecutive days, getting up at 4 a.m., to get the shot.

"People ask me, 'Do you have to have patience all the time to wait so long for a shot?' I don't think I have patience. I don't feel impatient either. It is not good to be waiting. I am either shooting. Or sleeping. Or moving with the animals. Never waiting."

Call it living on kangaroo time. **OP**

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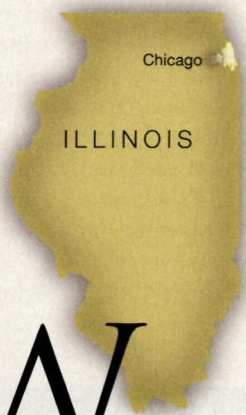


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When most photographers think of the Chicago area and northeastern Illinois, they usually don't envision captivating natural beauty. Corn fields, industry and urban sprawl dominate the landscape. Traveling down most roadways is anything but scenic to the lover of nature. But what I found in this area while working on my new book, *Illinois: Seasons Of Light*, may surprise many photographers.

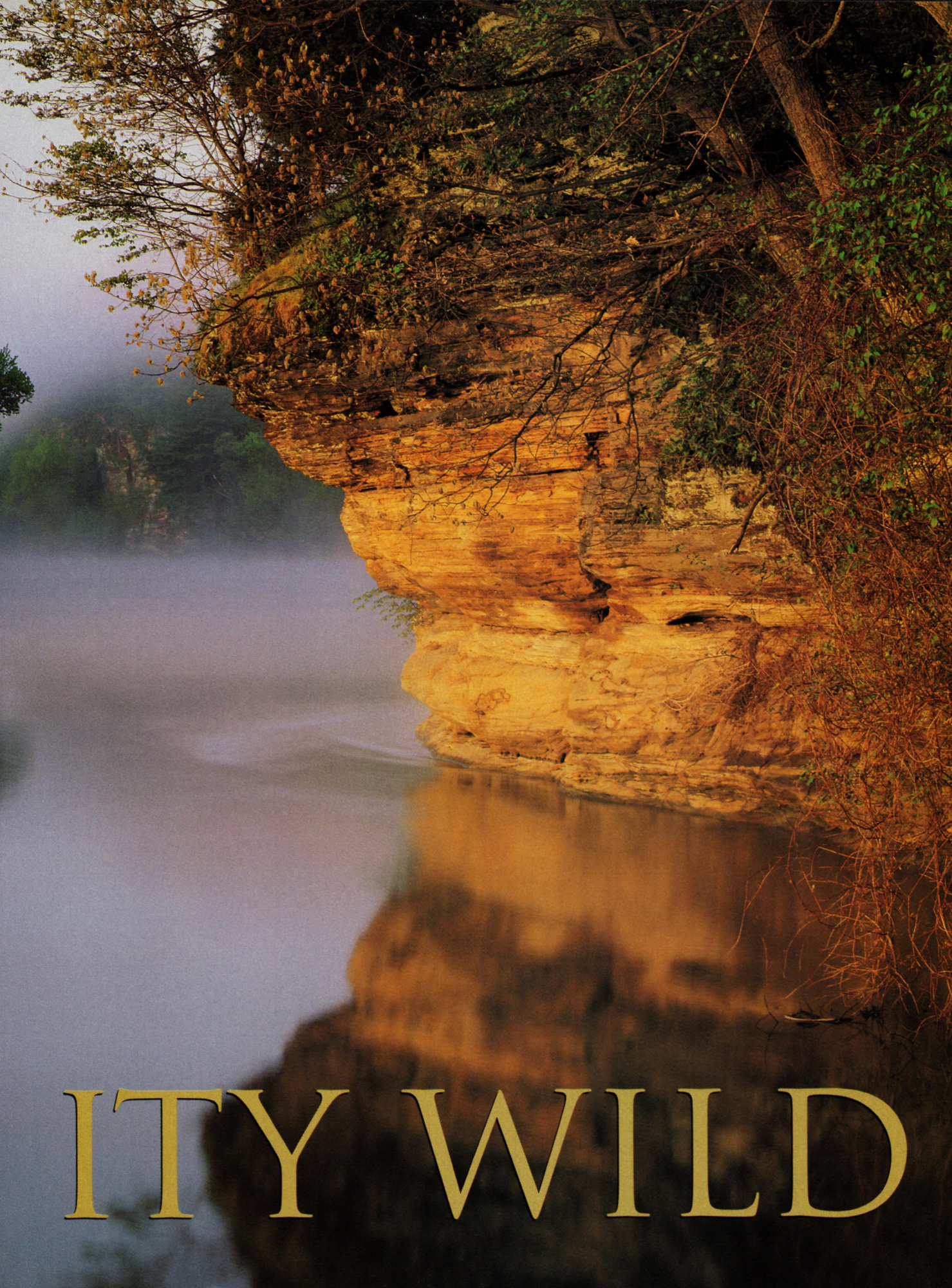
Illinois, along with the Chicago region, is comprised of a wide range of natural environments. While bordering Lake Michigan, the ecological diversity of northeastern Illinois is particularly unique. This area includes a broad

Photo opportunities
abound on great day
trips to natural areas in
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*Text And Photography
By Robert Shaw*

WINDY C





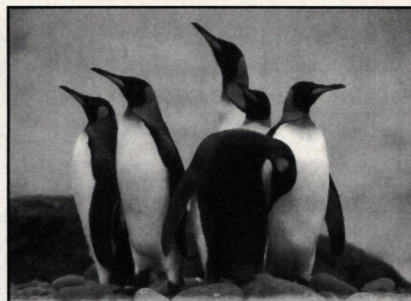
ITY WILD





OPENING SPREAD: A day trip out of the Windy City reveals opportunities like this luminous sunrise on the Rock River at Castle Rock State Park. **LEFT:** Several trails make photographic access easy for such dramatic landscapes as these yellow coneflowers and compass plants at the Nature Conservancy's Nachusa Grasslands. **TOP:** Waterfalls like this one in the upper dells at Matthiessen State Park run strong in the spring. **ABOVE:** Wildlife still has a place in the region; here, a white-tailed doe and her fawns enter a meadow.

CASTLE ROCK, NACHUSA GRASSLANDS, MATTHIESSEN: Sinar 4x5, Sinaron lenses, Fujichrome Velvia; DOE WITH FAWNS: Nikon F4, Nikkor 600mm, Fujichrome Provia



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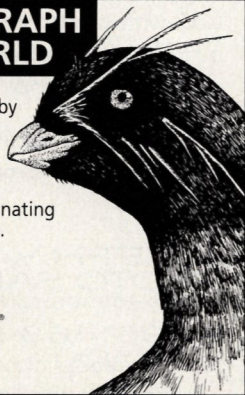


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WINDY CITY WILD

variety of prairies, savannas, forests, streams and wetlands. Several of the natural communities still preserved here are among the rarest in the world, including 181 species listed as endangered or threatened in Illinois. Because it possesses the largest concentration of tallgrass prairie and savanna remnants east of the Mississippi River, it's the only urban area in the United States to be designated by The Nature Conservancy as a "Last Great Place."

Each natural community offers different photographic possibilities, and each differs with every month of the year. Many flowers begin blooming in the forests and on the prairies by April. Woodlands tend to have a larger number of blooming species in early spring, while prairies have a greater concentration of blooming flowers in late spring

*... it's the only urban area
in the United States to
be designated by The
Nature Conservancy as a
"Last Great Place."*

and throughout the summer. By June, many prairies can be cornucopias of color. This is when the popular pale purple coneflower reaches its peak. Every year varies depending on the type of prairie, the amount of moisture and the weather. Until late October, when fall colors reach their climax, new species continue to emerge and bloom. This transformation with plant life through the year is also true with wildlife.

The shores of Lake Michigan are major flight routes during the spring and fall migrations for many species of birds. May and October are good times to photograph birds that only travel through during the migrations. Some species stay around all summer, while others, like the cardinal, can be found year-round.

I use blinds to do my bird and mammal photography and have always preferred natural light and natural settings. Butterflies and other insects can be found in both woodlands and prairies where their food source is located.

(Cont'd on page 94)



Photo by Martin S. Silverman © 1998

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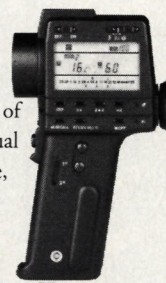
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Minolta's Vectis
Weathermatic Zoom
lets you photograph
with confidence in
any condition

By Rob Sheppard
Photography By Rob Sheppard
And Michael Guncheon



Many great photos await you in conditions you might not be comfortable with if you had to shoot with your favorite SLR. Winter snow looks pretty, but not when it melts on your camera. A rainy day can bring great muted colors or the potential for great light as the storm breaks, but there's no Gore-Tex® covering for camera and lens. And how about that special trip to the Caribbean and getting something, anything, to capture those stunning fish?

Minolta may have come up with the perfect answer. Its new Vectis Weathermatic Zoom opens up whole new creative possibilities for the discerning photographer who wants to go beyond the standard fair-weather shots that everyone else has.

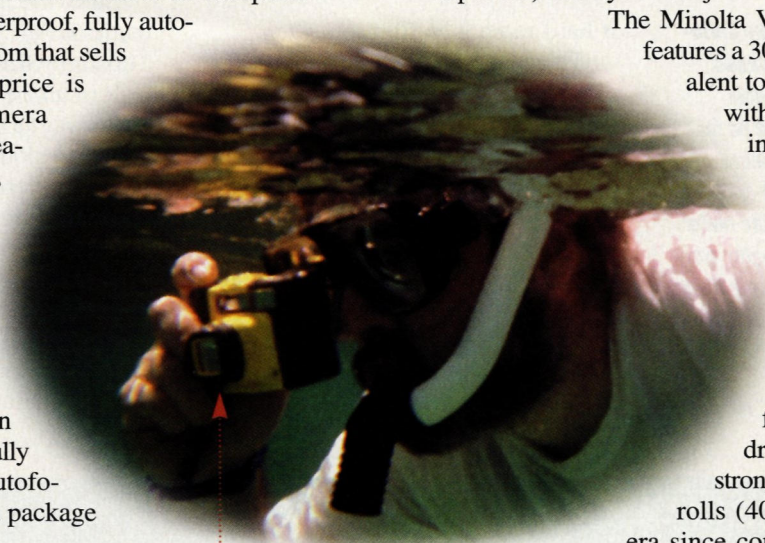
The Vectis Weathermatic Zoom is an exceptionally compact, fully waterproof, fully autofocus camera with a zoom that sells for under \$400 (list price is \$500). No other camera matches all of those features. It also represents, to us, an excellent application of the Advanced Photo System (APS) by offering a feature-rich camera in a very compact size (it would be difficult, maybe even impossible, to make a fully waterproof camera, autofocus, with zoom, into a package this size in 35mm).

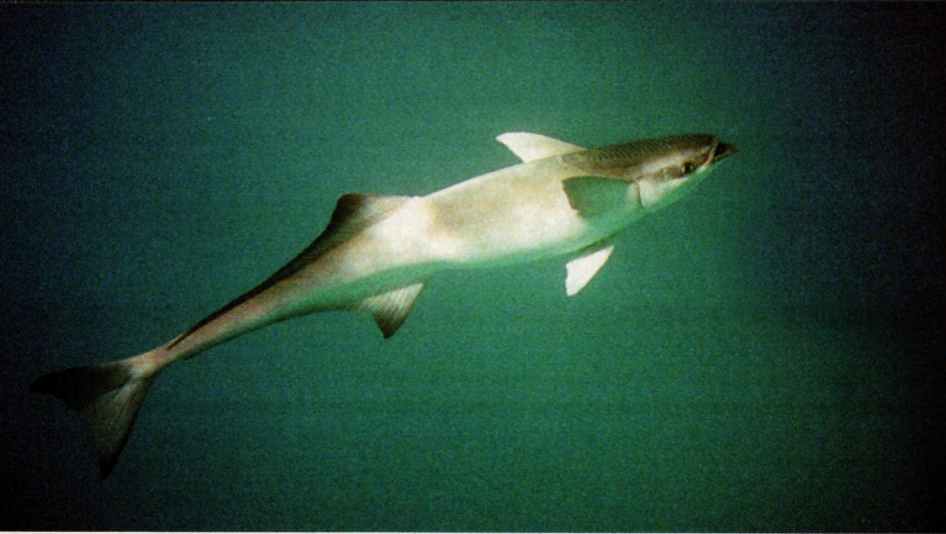
To put the camera to the test, we took it into the snow in the mountains near Salt Lake City (Rob Sheppard) and into the waters of the Caribbean (Michael Guncheon, columnist for *PCPhoto*). The camera was a gem. It took up little room, so it was easy to carry both while traveling and anywhere we went on location. And we didn't worry about it, whether shooting while the clouds dropped snow or when working from a boat.

It's a point-and-shoot, so the camera doesn't offer the controls of an SLR. That doesn't mean it's without control. You can control the focus of such a camera by locking it on an important part of your subject. And you can adjust exposure by locking exposure (and focus, so be careful how you do this) on areas around your subject that are lighter (to darken exposure) or darker (to lighten exposure) than your subject.

The Minolta Vectis Weathermatic Zoom features a 30-50mm *f*/4-6.4 lens (equivalent to 38-63mm in 35mm terms) with an autofocus range of 16 inches to infinity (20 inches to infinity underwater). The auto exposure is a center-weighted metering system that auto sets ISO from 100 to 3200.

Like all APS cameras, the Weathermatic Zoom offers a choice of framing formats (C, H or P) and drop-in loading of film. We'd strongly recommend using longer rolls (40-exposure) with this camera since conditions will usually make





From the snowy slopes of Utah to the Caribbean waters of the British Virgin Islands, the Minolta Vectis Weathermatic Zoom came through. The flash was turned on for the snowy trees to give the image more color and contrast. Underwater, the flash was turned off because of sediment in the water. The images still look great. Underwater work does take a little practice, so get some photos processed before you leave your location.

SNOWY TREES: Fujicolor Smart Film 100;
UNDERWATER: Fujicolor Smart Film 400

it hard to change film too often.

The camera has a built-in flash that can be turned on or off. In bad weather, the flash can actually intensify the weather by overexposing snow or raindrops near the camera. Underwater, it can be a problem, though, as it can make debris in the water objectionably intensified (this is true for any on-camera underwater flash).

We really enjoyed using the camera in the field, and the resulting images were great. We got back beautiful prints

from our local processor (even in tough snow-exposure conditions) that demonstrated the camera's well-designed exposure metering system and the excellent optics of the lens. We were also able to use a Minolta Dimâge Scan Dual film scanner to get the most from the negatives. The combination of APS and a film scanner is a superb way to use a computer to process your film for absolutely stunning prints. You can truly get the full range of tonal values that the film captured, a range that you won't always get from prints from your local mini-lab.

Sure, the Minolta Vectis Weathermatic Zoom won't match a Minolta Maxxum SLR or even a Vectis S-1 SLR in image control or ultimate quality for big prints, but we can say that this is no slouch of a point-and-shoot. The camera handles very well, offers truly excellent APS results and gives the photographer who really wants better results in tough, but possibility-rich conditions new creative opportunities.

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Hoya, the world's largest optical glass manufacturer, has introduced a line of filters whose aluminum frames are only 3mm thick. This is

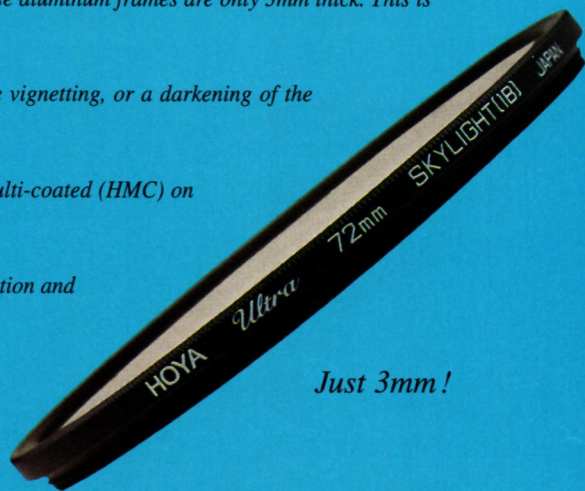
half the width of a standard filter frame. Filters without this ultra thin design can cause vignetting, or a darkening of the

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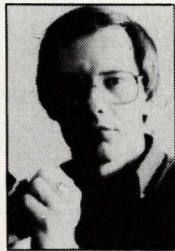
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Kodak's new Ektapress films offer some distinct advantages for wildlife and general photography

*Text And Photography
By Rob Sheppard*



Getting close to wildlife is always a thrill and, if you can make some nice photos as well, the excitement builds. So driving along the Black Point Wildlife Drive in the Merritt Island National Wildlife Refuge near Titusville, Fla., was an absolutely wonderful experience. The great variety of wild birds, from wood storks to pelicans, spoonbills to egrets, are used to cars on the one-way dirt road, so they generally pay little attention as you slowly drive through.

You'll need at least 400mm for most shooting, since the birds aren't right on the road. Turn off the engine and shoot through the open window. There are also some hiking trails in the refuge for interesting landscapes and close-up details. The refuge is low and flat, with many wetlands, and

some drier hardwood and pine hammocks. One of the most fascinating parts of this barrier island is that the refuge coexists with NASA's Kennedy Space Center. The best times for visiting are fall through spring.

I had gone to central Florida for a meeting of the North American Nature Photography Association (NANPA), but I needed to try out Kodak's Professional Ektapress new color print films, so I headed for Merritt Island. The PJ800, PJ400 and PJ100 films are actually designed for photojournalists (hence the "PJ" designation) and are heavily used by newspapers across the country. The new films are the 400- and 800-speed versions, which have several great advantages for general-purpose and wildlife photography:

- The speed makes slower telephoto and zoom lenses more useable. With

a 400-speed film, a 400mm *f*/5.6 becomes the equivalent of a 400mm *f*/2.8 lens with a 100-speed film in terms of shutter speed you can use.

- Tele-extendors are easier to use. A good 2X tele-extender with a good lens is a viable way of getting a longer focal length, but you also lose two *f*-stops. An 800-speed film gains back those *f*-stops plus an additional one.

- Longer lenses are more readily hand-held. A 300mm *f*/4 lens at *f*/4 with a 100-speed film just before sunset might give you 1/25 sec.—not hand-holdable for optimum sharpness. With

the 400-speed film, you get $\frac{1}{500}$ sec., with the 800, $\frac{1}{1000}$ sec.

- Faster action-stopping shutter speeds are possible in lower light levels. Wildlife is busy as the sun goes down. Light levels drop fast. An 800-speed film gives you three whole shutter speeds faster than 100-speed films.

- Higher-speed films tend to have more exposure latitude than slower films (especially compared to slide film). You rarely have to bracket.

I was very impressed with the new films and so are whole herds of photo-journalists who shoot the film for everyone from your local paper (likely) to *Sports Illustrated* (including the cover). The color, sharpness and grain structure of both films are all excellent. In a 4x6 print, you won't notice grain at all with the PJ400, and you have to look hard to see it in the PJ800; 8x10s are stunning from both films.

We always get the question, if these films are so good, why don't more pro outdoor photographers use them? The answer is the same as we stated in the October 1997 issue: Slide film is more



Speed with great color and fine grain. The wood stork was shot at sunset with a slow zoom lens with PJ800! Even a still subject looks good with PJ400 (the ferns). Both photos were taken at the Merritt Island National Wildlife Refuge in Florida.

Canon A2E, Tokina 80-400mm f/4.5-5.6 zoom

easily sold to multiple markets.

As people explore the possibilities of print film, this could change. You can capture a much larger tonal range of your scene with a negative than with any slide film. This range is most fully realized with custom printing or with the computer. Using the computer with color print film actually gives color photographers the same tonal range capabilities that Ansel Adams so finely exploited in black-and-white. Kodak's PJ400 and PJ800 have also been improved to provide better quality scans.

The films offer even more flexi-

bility when you hit really tough situations with falling light levels, as both are highly pushable. Already, Kodak has designed Ektapress PJ800 to be push-processed to EI 1600 or 3200 and PJ400 to 800 or 1600. Do some tests to see what you can use as the correct exposure index (EI) for your situation.

To keep films straight as to pushing or any other notes on a particular roll, you can actually write on the cassette. The metal exterior has been finished with a surface to accept writing, and there's even a blank space for a small note!

Since these are considered pro films, they're only packaged in multiple-roll form, in either five- or 20-pack boxes. The frosted plastic film can is a departure for Kodak, but a good one, since you can now quickly see what the film is without opening the container.

Contact: Kodak, (800) 242-2424, www.kodak.com/go/professional; for more information on Merritt Island National Wildlife Refuge, call (407) 861-0667 or the Titusville Chamber of Commerce, (407) 267-3036. **OP**



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*Text And Photography
By Christopher Robinson*

The new Sigma 28-105mm aspherical zoom lens was a welcome companion on a couple of recent trips. We traveled to Utah and spent a day photographing in the Wasatch Mountains and also had a chance to get out into Vasquez Rocks State Park north of Los Angeles for a day. As it happened, these two little excursions were perfect to get a look at the new lens under very diverse conditions. The day in Utah was marked by overcast skies and very flat light, while our trip to Vasquez Rocks was as crisp and clear as it ever gets.

This kind of day hiking can put a premium on what you carry. We went out with only the Sigma 28-105mm on our Nikon body and felt well-equipped. It's really nice to be able to hike like that and still have confidence that you have the right equipment.

Nice and compact, the lens features internal focusing and a rotating ring to activate the zoom. The autofocus mechanism is fast and accurate. If you prefer to focus manually, the manual-focus ring is a snap to use, thanks to a large profile. Even when we were wearing gloves, we found it easy to focus manually.

We snowshoed up away from the base of the mountain, following a partially frozen-over stream. In the flat light, it was challenging to find subjects that would

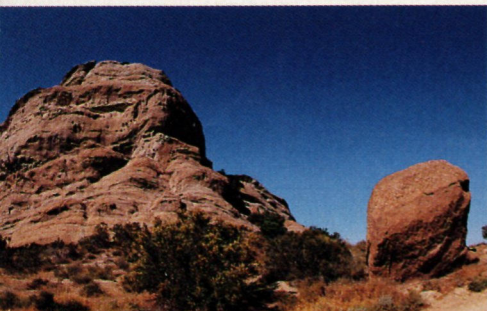


A Hiker's LENS

Afoot and afield with the versatile, new Sigma 28-105mm f/2.8-4

show up well. The Sigma's aspheric design gave us the most contrast possible in the light we had.

Taking the lens for a day in a Southern California park was a 180-degree different experience. It was hot enough that we were happy to leave everything but the bare essentials in the



The new Sigma 28-105mm f/2.8-4 offers a superb focal length range for the day hiker who wants to travel light.

Nikon FM2, Fujicolor Sensia 100 (left), Kodak E100SW (above)

trunk of the car. Again, we knew that we had the right lens for just about anything that we wanted to photograph. The 28-105mm range is really ideal for this kind of minimalist adventure. We used a polarizer to bring out the rich blue of the crystal-clear sky, which made a nice color contrast with the reddish-tan rocks that are a hallmark of Vasquez Rocks.

We really liked this lens. It's in a very comfortable focal range where being able to quickly go from 28mm to 105mm is a great asset. We tend to do a lot of shooting in this range, reserving a big telephoto and a 20mm for specialized situations. The Sigma isn't the most compact zoom in this range, but considering how much we rely on its focal length, a bit of space is well worth it. The 28-105mm range is our personal favorite to work with. It goes from a slight wide-angle to a slight telephoto. In this area, you get minimal wide-angle distortion at 28mm and a little compression at 105mm.

This new zoom offers a wide maximum aperture of f/2.8 at 28mm and goes to f/4 at 105mm. We've heard about some people being critical of zooms that go from f/2.8 to f/4 in this

(Cont'd on page 96)

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FILTER Systems



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By Graeme Fordyce

There are two great reasons for using filter systems in your outdoor photography. One is to render on film the realism of the scene you witnessed. You'll often be posed with situations where your film can't handle what your eye can see. At those times, it makes sense to know the ins and outs of a filter system so that you can create a final image that gives

the viewer an accurate and pleasing experience of the moment.

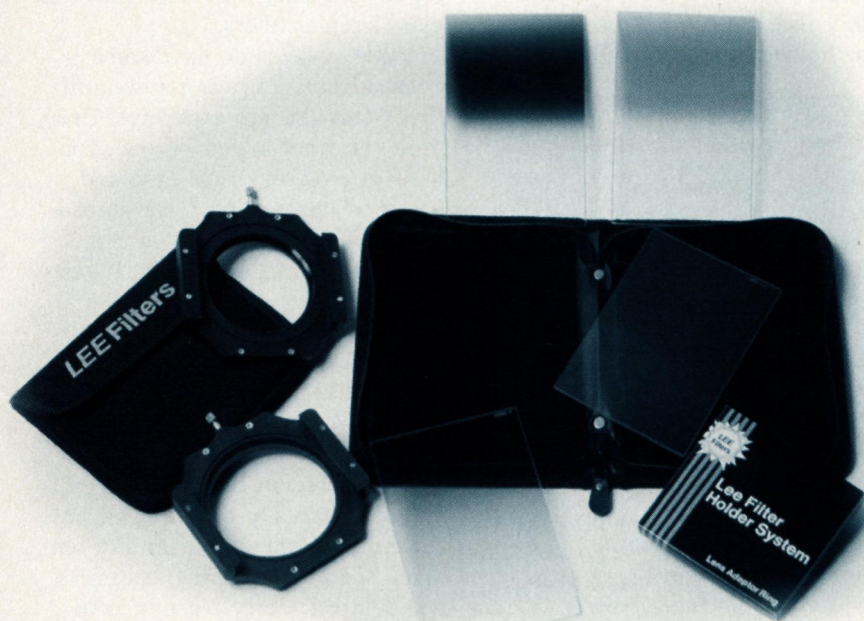
The other reason to use filters is to alter and enhance your subject. We've all had those days in the field when nature simply didn't cooperate. Instead of coming home with images destined for the rubbish bin, consider the possibilities of shooting with an effect. It's one more way that you can be expert in photographic image-

making and have fun exercising your vision and expertise.

Whenever you use a filter, remember that any element you place in front of your lens not only increases chances of lens flare and other reflective aberrations, but also takes a toll on image quality. You won't notice this with a single high-quality filter, but it's something to keep in mind before you stack them up to achieve an interesting effect.



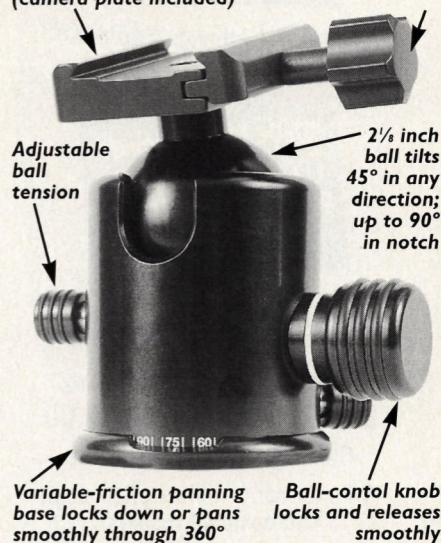
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Singh-Ray

A rule of thumb: Shoot straight unless you have a specific optical or aesthetic reason for adding a filter.

A big advantage to rectangular filter systems is the sheer breadth of what's available. Resin filters are lightweight and shatterproof. You can get your hands on literally hundreds of kinds of filters. Also, you can use the same filter with all your lenses. Adapter rings screw onto your lens, and from that point you quickly slide your filters in and out of the holder. Another major boon

is that you can move graduated filters up and down, changing the position of the tinted line, which isn't possible with a circular filter.

Bear in mind that filter systems are really best for tripod shooting because they can add a fair bit of weight to the front of your lens. Also, rectangular filters are typically made of plastic or high optical-quality resin and are thus more susceptible to scratching when compared to glass circular filters.

Filter systems do have some other advantages over screw-in filters. Screw-ins are expensive. Every time you want to change one, you have to go through the time and hassle of unscrewing it and threading another. Your shot may not wait. Also, in cold weather, it's easy for these types of filters to get stuck. If you want to add multiple filters for an effect, using screw-ins is more likely to cause vignetting.

As with any other optical element you place in front of your lens, your rectangular filters need to be kept clean. Dust and fingerprints can ruin an otherwise carefully rendered shot by degrading sharpness and contrast. Carry a can of compressed air and a micro-fiber cloth to clean your filters. Be careful—resin filters scratch very easily. Handle your filters only on the edges. Carry them in soft, protective, lined optical pouches or cases. Don't

Gelatin Filters

Gelatin filters are yet another dimension in the world of filter systems. **Kodak Wratten** gelatin filters come in 3x3-inch or 4x4-inch sizes, and there are hundreds of choices that run the gamut of filter effects. Wratten filters are high-quality and frequently used for studio photography; the most frequently used are color correction and neutral density. They're delicate, though, and easily damaged. Both **Voss** and **Kenko** make gel filter holders, which take the extensive Kodak Wratten line. **Calumet** polyester filters are also very similar to the Wrattens. They come in the same sizes, but are a bit tougher and less expensive. They're impervious to water, making them easy to clean. Contact: Kodak, 343 State St., Rochester, NY 14650-0229, (800) 242-2424, www.kodak.com.

sandwich them together—a grain of sand could score them with the slightest friction.

There are a few critical filters you'll want to have in any system. The first is a polarizer, which helps reduce haze, reduces reflections and glare on non-metallic surfaces, saturates colors and darkens the sky (optimally when pointed at 90 degrees from the sun). Rotate the polarizer while looking through the viewfinder and you'll see the effect.

Linear polarizers you use with filter systems are a bit tricky, though, as they thwart autofocus and throw off exposure metering. A little precision is required when shooting with them. You can focus and meter manually, without the polarizer on your lens; then, after attaching it, compensate by opening up a stop or two. (You'll want to test the density of your polarizer; most are about 1.5 stops.) Another method is to read the scene with the polarizer up against a hand-held meter.

Sometimes you're presented with a scene where there's a color cast and, in order to render the reality of your surroundings most faithfully, you'll need a color-correcting filter. Two that you'll get a lot of use from are the 81A warming filter (a pale orange hue) and an 82C cool filter (a pale blue hue). The warming filter will balance the bluish tint of an evening scene, and the cooling filter will give a more natural rendition of a deep sunset.

Another important component in your system is a neutral-density filter, the most commonly used being one, two and three stops. As the name suggests, these are color-neutral gray filters that decrease the amount of light which reaches the meter, without altering anything else, so you can use a slower shutter speed for some desired effect.

Often when you meter a landscape, the land and sky can be off by a few stops. Underexpose the land or overexpose the sky? Graduated neutral-density filters are half-clear and half-tinted, so you can compensate by moving the clear part over the land and the gray part over the sky. Be careful about using

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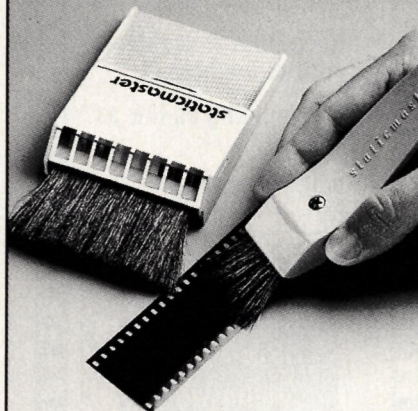
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small apertures—even though the division between gray and clear is somewhat gradual, a small aperture can make the line more apparent. Also, meter the difference between the land and sky before adding the filter. The tinted division can fool your meter.

The **Lee Filter System** takes resin filters in its patented, customizable holder. Lee filters, at 4x4-inches and 4x6-inches, are big enough that you'll easily cover most lens sizes. Lee filters are very high-quality, are extensively used in the movie industry and you have around 200 from which to choose. You can fit three filters in one Lee holder and, if you want more than that, there's a special adapter that lets you attach multiple holders together and rotate them independently. (Lee also makes polyester filters to fit the Cokin size A filter holder.)

Adorama's Pro Optic filter system is compact and of a slightly different design than most. The filters are circular (except the graduated filters). They come in plastic cases, whose lids grip the filters when you pull them out. You slide the filter into the holder, never having to touch the edges with your fingers. The Pro Optic filters are compatible with the Cokin A series, and there are about 100 Pro Optic filters available.

Both **Cokin systems**, the A and P, use a filter holder that attaches to your lens via an adapter ring. The two systems work the same way, but the size A system is smaller (2.6x2.5-inches) and recommended for focal lengths of 35mm and above. The P system is larger (3.3x3.9-inches), so you'll have better coverage with wider-angle focal lengths. You can buy an A/P adapter and use A filters with the P system, so you don't need to replace A filters you already have. You can also buy a coupling ring to attach a second filter holder. There are over 250 filters in the A and P systems.

Cokin also has a new **X-Pro Series creative filter system**, with approximately 50 new filters measuring a very large 6.7x5.1-inches.

The X-Pro series has a newly designed universal filter holder that uses lens adapter rings from 62mm to 112mm in size.

Singh-Ray makes excellent filters that come in either Lee or Cokin P holder sizes. The circular Warming Polarizer PLUS, Intensifier Polarizer PLUS and UV Correcting Polarizer are available in Cokin polarizing rings to fit in Cokin P filter holders. Singh-Ray rectangular filters, like the grad ND filters, intensifiers and other specialty filters, all fit Cokin P holders.

Tiffen also makes an extensive line of filters to fit the Cokin P holder. **Ambico** makes a filter system with a rear standard that takes any 3x3-inch filter up to 1/16 inches thick. The front standard accepts special masks and vignettes. **Calumet** sells a holder and 4x4-inch and 4x5-inch resin filters based on the Lee system. There are more than 80 filters in the Calumet filter system. OP

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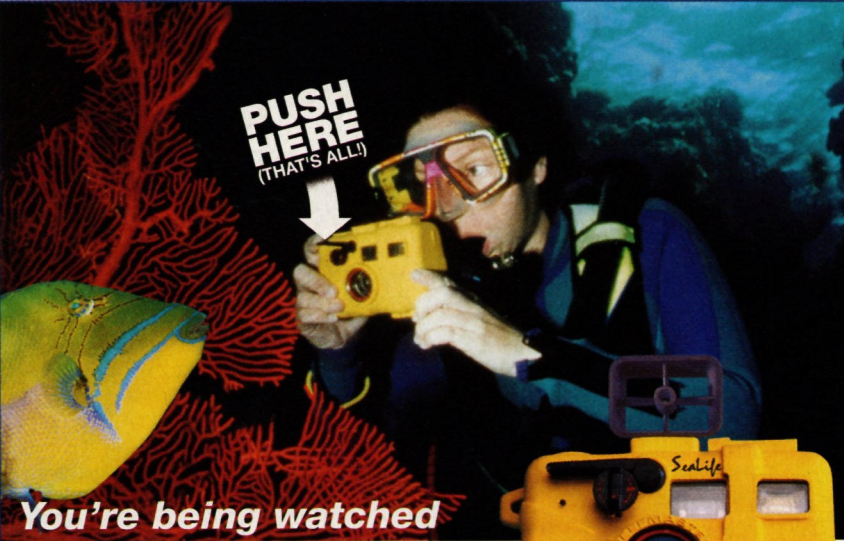
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For more information, contact: ICP, Education Dept., 1130 Fifth Ave., New York, NY 10128, (212) 860-1776, ext. 156, fax: (212) 722-3674, www.icp.org/.

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For more information, contact: Cory Nature Photography, P.O. Box 42, Signal Mountain, TN 37377, (800) 495-6190, (423) 886-1004, e-mail: TomPatCory@aol.com.

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ural Habitat Adventures, 2945 Center Green Ct., Boulder, CO 80301, (800) 543-8917, (303) 449-3711, fax: (303) 449-3712, e-mail: nathab@worldnet.att.net.

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For more information, contact: Palm Beach Photographic Centre, 55 NE

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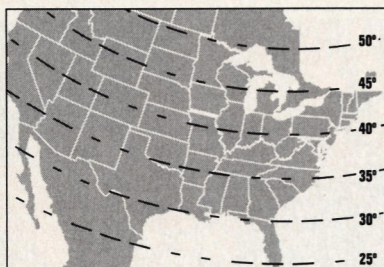
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SUNRISE/SUNSET

Latitude	June 6	June 13	June 20	June 27
25° N	R-064 S-296	064 296	064 297	064 296
30° N	R-063 S-297	062 298	062 298	062 298
35° N	R-061 S-299	061 300	060 300	061 300
40° N	R-059 S-301	058 302	058 302	058 302
45° N	R-056 S-304	055 305	055 305	055 305
50° N	R-052 S-308	051 309	051 310	051 309
55° N	R-046 S-314	045 315	045 316	045 315
60° N	R-037 S-323	036 325	035 325	035 325
65° N	R-020 S-341	016 345	014 347	015 345
70° N	R- -- S- --	-- --	-- --	-- --

FULL MOONRISE/MOONSET

Latitude	June 7	June 8	June 9	June 10
25° N	R-105 S-257	108 254	110 251	111 249
30° N	R-106 S-256	109 253	111 250	112 248
35° N	R-107 S-255	110 252	112 249	113 247
40° N	R-108 S-254	111 250	114 247	115 245
45° N	R-109 S-253	113 249	116 245	117 243
50° N	R-112 S-251	116 247	119 243	121 240
55° N	R-114 S-249	119 244	123 239	125 236
60° N	R-118 S-246	124 239	129 234	131 230
65° N	R-124 S-241	132 233	138 226	141 221
70° N	R-135 S-234	146 222	157 212	163 202

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☾	Last Quarter	June 17
●	New	June 23

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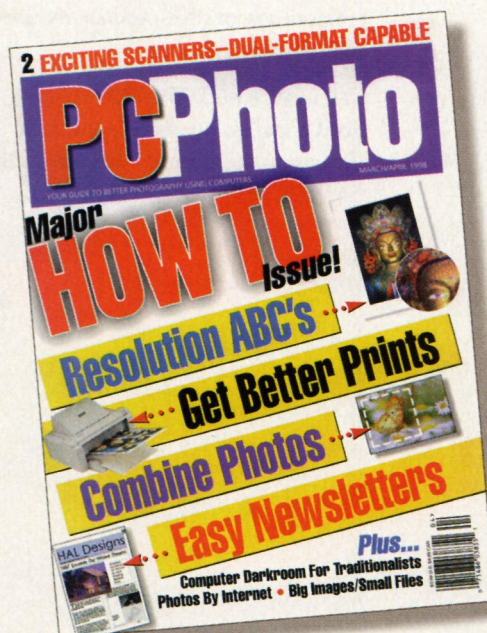
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GRAPHIC LANDSCAPE

(Cont'd from page 47)

A good example of an aesthetic layout of plants is the image of the moon and Quiver trees. I photographed in front light several minutes after sunset. To avoid dark silhouettes, I waited until the brighter light of the sky had adjusted to the tones of the trees. I took the image from an angle where no overlapping occurred and where different heights of the aloe plants created a third dimension in the picture.

Water is another medium that offers itself up for graphically arresting photos. I chose the mirror-like surface of a small lake as an even background for water lily leaves painted golden by the setting sun. The graphic qualities of the image are accentuated by omitting a horizon line or pond banks.

You can also think of calm water as a mirror. In the image of the lilies, the water is reflecting the bright sky. By composing with an object like a tree reflected in the water, you can add a different graphic to the image.

The image on page 46 depicts an interesting graphic pattern—converging bands of desert varnish meeting in a spot outside the image. The illuminated tree livens up the picture; its central importance is underlined by framing it within the pyramid-like structure of those dark diagonal lines.

Since I photograph landscapes mainly with 35mm equipment, I use only fine-grained film in order to obtain sufficient detail; I used Fujichrome Velvia exclusively for these images. The 35mm format allows me more flexibility than medium or large format.

In landscape photography, I don't limit myself to smaller focal lengths. For abstract images, in particular, I often prefer the 600mm tele lens, which opens up completely new perspectives. It's very useful in isolating interesting details in the landscape, as in the image of moon and rocks.

While I often use the 20-35mm wide-angle lens in general landscape photography, I tend to prefer medium to longer focal lengths when shooting strong graphics. This requires a stable tripod, which I have in almost constant use. The tripod makes it possible to achieve clean composition, good depth of field and, needless to say, the desired sharpness.

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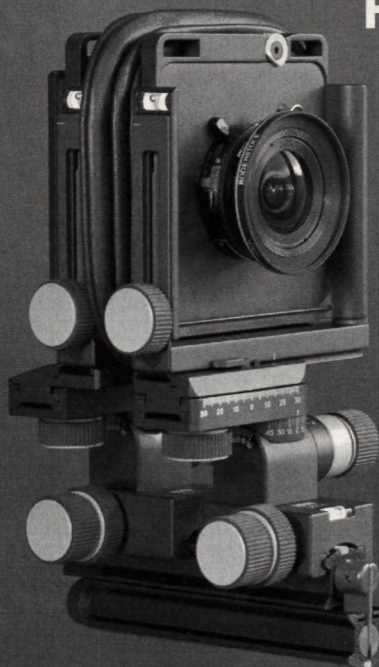
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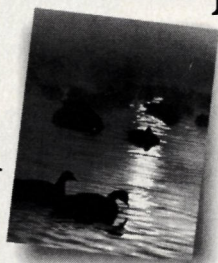
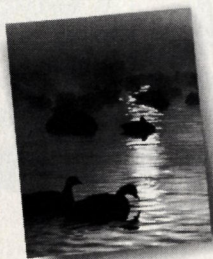


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WINDY CITY WILD

(Cont'd from page 70)

Often, following the cycles of plant life, different species of insects can be found as the growing season progresses.

The Chicago Wilderness, a regional nature preserve, has been formed by a partnership of 54 public and private organizations. The preserve encompasses more than 200,000 acres of protected natural lands in the Chicago metropolitan area. Chicago Wilderness includes county forest preserves, city and state parks, federal lands, privately owned natural areas and other nature preserves.

The six counties of the Chicago metropolitan area include 83 nature preserves dedicated by the Illinois Nature Preserves Commission, more than one-third of Illinois' dedicated nature preserves. Some are privately owned, and special permission must be obtained before entering the property. It's a good idea to double check before entering all nature preserves. Most are very delicate areas that can easily be damaged.

The remaining natural areas in the Chicago region and throughout Illinois are very fragmented. Few large tracts of wild areas still exist. This makes it very difficult to create landscape images that take in the horizon. Buildings, power lines, towers and industry are often in the way. In these areas, photography has to adapt to the situation. Close-up and macro photography are sometimes the only alternatives.

Several larger natural areas within a couple hours' drive of the Chicago area make good day or weekend trips. Starved Rock and Matthiessen State Parks have beautiful canyons and waterfalls. The streams are usually running strong in the spring, but water flow slows significantly during the summer months. These two parks become very busy on the weekends, so it's best to avoid them at that time. Other state areas with numerous photographic possibilities include Kankakee River, Castle Rock, White Pines and Illinois Beach State Parks, as well as Goose Lake Prairie and Volo Bog. All offer easy access, and overnight camping or lodging spots are common.

The Nature Conservancy has a preserve near Castle Rock State Park called Nachusa Grasslands. Primarily a prairie restoration area, it's also a

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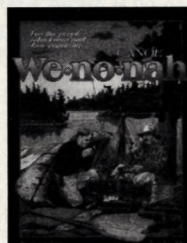
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WINDY CITY WILD

beautiful preserve with good access. Several trails meander through the preserve, making photography of the abundant wildflowers and butterflies possible. The Nature Conservancy also has prairie preserves, called the Indian Boundary Prairies, which are located in the Chicago metropolitan area. These are virgin prairies, little paradises surrounded by the city. In August, the blazing star is enchanting. Some of these areas also have nice trail systems, and access is very good.

An indispensable tool in finding many of these areas is the *Illinois Atlas & Gazetteer*, published by DeLorme Mapping. This atlas contains detailed topographic maps and a list of trails, unique natural features, wildlife areas and campgrounds.

In the heavily urbanized area of northeastern Illinois, it may seem that nature is long gone. My attempt in photography is to convey the importance of protecting the last precious remnants of natural areas. With less than one-tenth of one percent of Illinois' prairie remaining, and even less oak savannas, these areas are more rare than the tropical rain forests. As photographers, we can help protect these last great places. **OP**

For more information about Robert Shaw's new book, *Illinois: Seasons of Light*, contact: *Wild Perceptions*, P.O. Box 590, Heyworth, IL 61745, (309) 473-2990, www.wildperceptions.com.

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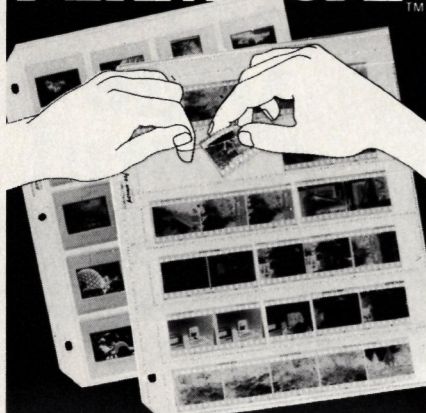
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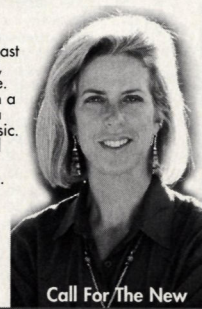
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A HIKER'S LENS

(Cont'd from page 79)

focal range, but frankly we don't understand that. The $f/4$ at 105mm was plenty fast for everything we were photographing with it. Thankfully, we're not shooting journalism for a living where it might be more important to have something faster.

If you've been following *OP* recently, you also know that we've been touting modern color-negative films. The current selection of color-print materials is excellent. In the ISO 200 and faster range, there are a number of great choices that will more than make up for the one stop that you lose at the long end of the zoom. As an aside, this is yet another reason why we like the color-print films so much. They allow you to use slightly slower and less expensive lenses and still get the high-quality images that you're going for.

Sigma's 28-105mm has an aspherical design that ensures that you get sharp, well-corrected photographs. Lenses that have wider maximum apertures used to lack contrast and could be noticeably softer near the edges of the frame when used at their wider aperture settings. This Sigma exhibits none of those problems. We used it in lower light conditions at $f/2.8$ and got tack-sharp images all the way to the edges. And, even in these flat-light conditions, the contrast was as good as it could be.

When we took the lens out on a sunny day with a clear, azure sky, it performed extremely well. To get the rich blue in the sky, we used a polarizer. Because the lens is internally focusing, we were able to use a linear polarizer. The front lens element doesn't rotate in internally focusing systems, which makes this possible. It's a nice feature because it means there's one less thing that you have to be thinking about when you're out looking for the perfect photograph.

The Sigma 28-105mm $f/2.8-4$ aspheric zoom measures 3x3.25-inches, weighs 13.2 ounces and sells for \$219. It's available for autofocus Nikon (D), Canon, Minolta, Pentax and Sigma's own SA cameras, as well as manual focus Nikon A1 and Pentax KPR mounts.

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W I L D S I D E

(Cont'd from page 22)

animals and fill the frame with your subject without your being a threat to the wildlife. At that distance, the wildlife isn't likely to be a threat to you, either.

McKibben's claim that people with instamatics are getting hurt because they try to duplicate the close-up shots of wildlife that professionals take with their long lenses is symptomatic of what's wrong with much of society today. No one is responsible for their own actions.

The only place tourists are likely to ever get close to any of the big game animals that may hurt them is in our national parks and refuges. The staff of the national parks and the refuges are doing an excellent job of warning everyone of the hazards of approaching wildlife. If people get hurt, they can't say they weren't told because they were, but they surely can't blame wildlife photographers.

McKibben condemns the use of game farm animals. I've been photographing wildlife long before there were game farms. I still photograph hundreds of species in the wild all over the world today, but my photos of baby cougars taken at a game farm has let multitudes of people see something they'd never see otherwise.

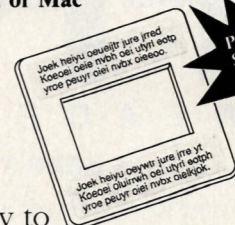
I've photographed wild wolves in Alaska and bobcats in Texas, but most of my photos of these animals were of game farm animals. Freelance photographers, like myself, don't have the funding needed for the long and expensive expeditions into remote areas where assignment photographers are sent. Photographing game farm animals allows us to at least compete in a very competitive marketplace. I'd think that McKibben would heartily endorse the use of game farm animals because, at least, this would be consistent with his idea of reducing pressure on the wild species.

I don't believe that McKibben ever thought that the ideas he espoused in his essay would really change wildlife photography; he thought the concept controversial enough that it would help him sell another article. His ideas have been denounced and rejected by publishers, producers and photographers. No Bill McKibben will ever stop me from being a wildlife photographer. Only God can do that.

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FAST, FREE INFO!

1. What brand of SLR do you currently own (and use as your primary camera)?

01. ☐ Canon 06. ☐ Nikon
02. ☐ Contax 07. ☐ Olympus
03. ☐ Leica 08. ☐ Pentax
04. ☐ Minolta 09. ☐ Yashica
05. ☐ Other (write in) _____

2. Did you purchase the above new/used?

10. ☐ New 11. ☐ Used

3. If you purchased a new (not used) SLR in the past 12 mos, what brand was it?

12. ☐ Canon 17. ☐ Nikon
13. ☐ Contax 18. ☐ Olympus
14. ☐ Leica 19. ☐ Pentax
15. ☐ Minolta 20. ☐ Yashica
16. ☐ Other (write in) _____

4. If you purchased new in the past 12 mos, did you make a brand switch?

Camera replaced:

21. ☐ Canon 26. ☐ Nikon
22. ☐ Contax 27. ☐ Olympus
23. ☐ Leica 28. ☐ Pentax
24. ☐ Minolta 29. ☐ Yashica
25. ☐ Other (write in) _____

5. Camera newly purchased:

30. ☐ Canon 35. ☐ Nikon
31. ☐ Contax 36. ☐ Olympus
32. ☐ Leica 37. ☐ Pentax
33. ☐ Minolta 38. ☐ Yashica
34. ☐ Other (write in) _____

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The 35mm SLR in focus is what you captured just got. The Canon's exclusive film-controlled focus allows each shutter release from 1/4000 to 1/30.
Page 30

Leica
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Pentax
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Because *OUTDOOR PHOTOGRAPHER* values your continued readership, we've created this Reader's Forum to allow you to tell us what you think of the articles that appear in this issue. It's easy! Each feature and column in the issue is numbered below. Simply circle the Reader Service Key Number on the attached Reader Response Card that corresponds to the **two features and the two columns** that you liked most and liked least. Also, by circling the numbers on the Reader Response Card that correspond to advertisers in the magazine, you can obtain fast, free information on these items at no extra cost. Make sure you print or type your name and address where indicated and answer all questions. Thank you for your feedback!

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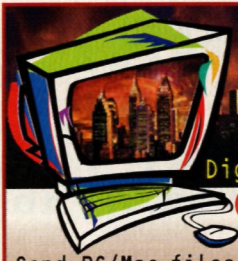
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Tokina AF353 Super-mini Zoom

The AF353 super-mini zoom lens provides a wide range of lens settings from 35mm wide angle to 300mm telephoto, and high magnification of more than 8x. Despite high magnification, body length is astonishingly short 101.3mm. The lens is equipped with a new zoom lock that prevents the zoom section from sliding down due to its own weight when the camera is pointed downwards. It also makes the lens more compact and easier to carry. A metal zoom assembly ensures enhanced, stable performance and durability. In the optical system, the lens contains super-low dispersion FKOI SD glass. An optical system like this and built-in flare cutter give sharper contrast and higher resolution.

Also available at Samy's Camera

The Kenko ProField 70A



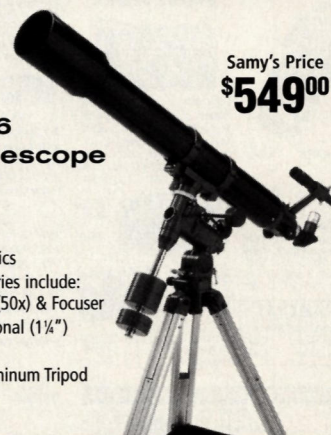
PF-70S/70A

Samy's Price
\$272⁹⁵

Style	Pro Field
Magnification	20-50x
Obj. Dia.	70mm (2.8")
Exit Pup. Dia.	3.5-1.4mm (0.14-0.06")
Angle of View	1.6-0.9 Degrees
Field of View	28-16m (91.9-52.5')
at 1000m (1093yd)	
Rel. Brightness	12.3-2.0
Eyepoint	20.0-15.5mm (0.79-0.61")
Min. Foc. Dist.	8.5m (27.9')
Filter Size	77mm
Length	380mm (15.0")/360mm (14.2")
Weight	980g (34.3oz.)/1000g (35.0 oz.)



CELESTRON



Celestron Model #21016 C102-HD Telescope

Samy's Price
\$549⁰⁰

- 102mm (4") Aperture
- 1000mm Focal Length
- Focal Ratio of f/10
- Fully Multi-coated Optics
- Standard 1 1/4" Accessories include:
10mm Plossl Eyepiece (50x) & Focuser
- 90 Degree Mirror Diagonal (1 1/4")
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- Sturdy Adjustable Aluminum Tripod
with Accessory Tray
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90/2.5 ATX Macro	Call	-	-	-	-
1:1 Macro Ext.	89.95	-	-	-	-
100/2.8 ATX AF Mac	Call	-	-	-	-
300/4 ATX APO AF	Call	-	-	-	-
300/2.8 ATX APO	Call	-	-	-	-
400/5.6 SD	229.95	-	-	-	-
400/5.6 ATX APO AF	Call	-	-	-	-
19-35/3.5-4.5	Call	-	-	-	-
20-35/3.5-4.5 Mac AF	Call	-	-	-	-
20-35/2.8 ATX PRO	Call	-	-	-	-
28-70/3.5 Macro SD	Call	-	-	-	-
28-70/2.8-2.8 ATX Pro	Call	-	-	-	-
28-80/3.5-4.5	Call	-	-	-	-
28-105/3.5-4.5	Call	-	-	-	-
28-210	Call	-	-	-	-
28-300 4/6.3	Call	-	-	-	-
New 35-300/4.5-6.7 SD	Call	-	-	-	-
70-210/4-5.6 Macro	Call	-	-	-	-
75-300/4.5-5.6	Call	-	-	-	-
80-200/2.8 ATX APO Pro	Call	-	-	-	-
80-400/4-5.6 ATX APO	Call	-	-	-	-
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MACRO

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Fits in front of your lens. Zooms you closer to subject. Constructed of 2 elements in 2 groups. Fits standard 52mm filter diameter.

+2 to +4 Macro Zoom Lens.....	49.95
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HOYA CLOSE-UP LENS SETS

Consists of: +1, +2, and +4 diopters which can be stacked for a total of +7 close-up effect.

49mm, 52mm, 55mm.....	26.95	58mm.....	36.95	62mm, 67mm.....	42.95
72mm.....	54.95	77mm.....	64.95		

HOYA MULTI-COATED CLOSE-UP LENS SETS

49mm, 52mm, 55mm.....	44.95	58mm.....	51.95	62mm, 67mm.....	64.95
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MACRO FOCUSING RAIL SET

139.95

Where critical focusing is desired

- A must for macro photography. Constructed of all metal parts
- Moves in 4 directions: forward, backward, right and left
- Fine focusing knob for precision accuracy
- Engraved scale
- Can be used with any tripod.

Sunpak PZ4000 AF

- Motor driven zoom head automatically adjusts to match the focal length of the lens in use.
- Illuminated LCD panel displays TTL mode min/max flash range, Manual mode, Power Ratio settings, Exposure confirmation and zoom/focal length lens setting
- Dedication includes TTL Daylight fill Shutter speed control, viewfinder ready-light activation exposure confirmation.
- Guide number of 132 at ISO 100

Available for: Nikon Canon and Minolta Camera System

139.95

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Ball #1 w/Quick Release	379.95
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KIRK

New KIRK Ball Head w/Quick Release **\$29.95**

KIRK Plates In Stock

EZ-360 Quick Release Tripod Mount for Nikon 80-200/2.8 **149.95**

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Not just for fashionable events, they are great in the field too.

- Available in Cowhide or more Supple Sheep Leather
- Available in 4 sizes

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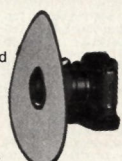
- 4x, Black Finish, with fixed transparent shade and black sliding hood.
- High quality optics.
- With Neck Strap and Pouch.

(PRO4X) **59.95**

ADORAMA MACRO REFLECTOR

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Ideal for bouncing fill-in light when doing macro or close-up work. Especially suited for outdoor work. Silver reflector fits on lenses up to 77mm diameter and is secured onto lens with 4 velcro straps. 12" in diameter, collapses down to 4". Comes with case.



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Binoculars

New from Pro-Optic...

In the short time of its existence Pro-Optic has gained a name for delivering high quality items at economy prices. Now they added a new series of binoculars to their line-up. The **Optima 42mm large aperture roof prism binoculars**. These binoculars feature:

- High index BAK-4 glass prisms • Fully multi-coated optics
- Long eye-relief, great for eye glass wearers
- Large focusing knob • Black rubber armor
- Supplied with deluxe leatherette case & neck strap

	Field of View	Eye Relief	Close Focus	Size	Weight oz.	
7x42	6.5°	22mm	19.7'	6.2x5.3"	24.4	139.95
8x42	6.3°	19mm	16.4'	6.2x5.3"	24.3	144.95
10x42 Wide Angle	6.5°	12mm	14.7'	6.2x5.3"	24.7	149.95

Night Owl Nightvision

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PRO-Optic Binoculars



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Fast f5.6, Short 8.5" (weight 2.1 lbs. 11 oz.) May be used as a Spotting Scope with Optional Conversion Kit only 209.95

Spotting Scope Conversion Kit with purchase of the Pro-Optic 500S 6. 49.95

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Accepts bulk film rolls up to 100'	
Has a deluxe counter to let you know how many feet of film are left in the loader.	

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Super V200	2.09	10.88
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ASA	24	36X w/Proc.	120
CN (100)	1.59	8.08	1.99 10.38 —
CA (200)	1.89	8.38	2.20 10.18 —
CR (400)	1.99	8.48	2.79 11.18 —
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Superia Realia (100)	2.39	8.88	2.99 11.38 2.25

FUJICOLOR PRO PRINT FILM

ASA	24	36X w/Proc.	120
RVP Velvia (50)	5.29	8.58	5.99 7.75 17.95 79.95 67.95 317.95
RTP (64)	5.45	8.78	7.75 3.39 — 79.95 16.95 78.95 63.95 299.95
RDP (100)	6.49	9.78	10.78 — 7.99 — — — —
RAP Astia (100)	5.45	8.74	9.74 3.79 7.95 79.95 16.95 77.95 65.95 305.95
RDP II Provia (100)	4.99	8.28	9.28 3.79 7.75 77.95 17.95 82.95 67.95 319.95
New RNS 100/1000	Call	Call	Call Call Call — — —
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RSP Provia (1600)	7.99	—	— — — — —

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ASA	36X w/Proc.	120	220	Bulk	100'	4x5	50	8x10
NPS (160)	2.99	11.38	2.35	5.59	39.95	15.49	69.95	56.95
NPL (160)	—	—	—	—	—	15.95	69.99	56.99
NPG (400)	3.79	12.18	2.79	6.19	—	—	—	—
NHG (400)	—	—	—	—	—	—	—	—
New NING II (800)	5.99	14.38	3.99	7.99	—	—	—	—

FUJI PRO BLACK & WHITE FILM

ASA	36X w/Proc.	120	220	Bulk	100'	4x5	50	8x10
Neopan (100)	1.85	10.28	—	—	—	—	—	—
Neopan (400)	2.44	10.83	2.25	—	31.95	—	—	—
Neopan (1600)	3.19	11.58	—	—	—	—	—	—
CDU Duplicating	—	—	—	—	—	40.95	65.95	249.95
ITN Internegative	—	—	—	—	—	70.95	16.89	71.95 56.95 259.95

FUJICOLOR PRO PRINT FILM

ASA	24X	24X w/Proc.	36X	120
RA (100)	2.79	6.16	3.29	6.58 8.08
RM II (200)	3.19	6.56	3.99	7.28 8.38
RH II (400)	4.34	7.71	5.19	8.48 9.48

FUJICOLOR PRO PRINT FILM

ASA	24X	24X w/Proc.	36X	120
RA (100)	2.79	6.16	3.29	6.58 8.08
RM II (200)	3.19	6.56	3.99	7.28 8.38
RH II (400)	4.34	7.71	5.19	8.48 9.48

FUJICOLOR PRO PRINT FILM

ASA	24X	24X w/Proc.	36X	120
RA (100)	2.79	6.16	3.29	6.58 8.08
RM II (200)	3.19	6.56	3.99	7.28 8.38
RH II (400)	4.34	7.71	5.19	8.48 9.48

FUJICOLOR PRO PRINT FILM

ASA	24X	24X w/Proc.	36X	120
RA (100)	2.79	6.16	3.29	6.58 8.08
RM II (200)	3.19	6.56	3.99	7.28 8.38
RH II (400)	4.34	7.71	5.19	8.48 9.48

FUJICOLOR PRO PRINT FILM

ASA	24X	24X w/Proc.	36X	120
RA (100)	2.79	6.16	3.29	6.58 8.08
RM II (200)	3.19	6.56	3.99	7.28 8.38
RH II (400)	4.34	7.71	5.19	8.48 9.48

FUJICOLOR PRO PRINT FILM

ASA	24X	24X w/Proc.	36X	120
RA (100)	2.79	6.16	3.29	6.58 8.08
RM II (200)	3.19	6.56	3.99	7.28 8.38
RH II (400)	4.34	7.71	5.19	8.48 9.48

FUJICOLOR PRO PRINT FILM

ASA	24X	24X w/Proc.	36X	120
RA (100)	2.79	6.16	3.29	6.58 8.08
RM II (200)	3.19	6.56	3.99	7.28 8.38
RH II (400)	4.34	7.71	5.19	8.48 9.48

COLOR PRINT FILM 35mm

Film	ASA	DI	135-24	135-36 Proc.	135-36	135-36 Proc.	135-36 Proc.
GA (100)	1.75	3.39	8.24	9.88	2.15	4.09	10.54 12.48
GB (200)	2.09	3.89	8.58	10.38	2.49	4.99	10.88 13.38
GC (400)	2.15	4.19	8.64	10.68	2.59	4.99	10.98 13.38
GT Gold Max (800)	—	—	3.95	10.44	—	5.39	13.78
Royal Gold RZ (25)	—	3.89	—	10.38	—	4.75	13.14
Royal Gold RA (100)	—	3.35	—	9.84	—	4.49	12.88
Royal Gold RB (200)	—	3.95	—	10.44	—	4.99	13.38
Royal Gold RC (400)	—	4.39	—	10.88	—	5.49	13.88
Royal Gold RF (1000)	—	5.59	—	12.08	—	6.99	15.38

SLIDE FILM 35mm

Film	ASA	DI	135-24	135-36 Proc.	135-36	36X w/KODAK PR.	36X w/FUJI PR.
KM (25)	—	4.59	—	7.87	—	5.95	10.24
KR (64)	—	4.29	—	7.66	—	4.79	9.08
KL (200)	—	5.19	—	8.56	—	7.29	11.58
Elite EA (50)	—	—	—	4.99	5.99	9.28	10.28 8.30 9.38
Elite EB (100)	3.35	4.29	6.72	7.66	3.29	5.49	7.58 9.78 6.58 8.78
ET (160)	4.99	5.29	8.36	8.66	6.69	7.29	10.98 11.58 9.98 10.68
Elite ED (200)	4.79	5.25	8.16	8.62	5.15	6.89	9.44 11.18 8.48 10.18
Elite EL (400)	5.39	5.99	8.76	9.36	5.79	7.99	10.08 12.28 9.08 11.28

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PXT (100T)	16.59	75.95 62.95 —

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Scotch 640 T	5.49	6.78

FUJICOLOR PRO PRINT FILM

ASA	24X	24X w/Proc.	36X	120
RA (100)	2.79	6.16	3.29	6.58 8.08
RM II (200)	3.19	6.56	3.99	7.28 8.38
RH II (400)	4.34	7.71	5.19	8.48 9.48

FUJICOLOR PRO PRINT FILM

ASA	24X	24X w/Proc.	36X	120
RA (100)	2.79	6.16	3.29	6.58 8.08

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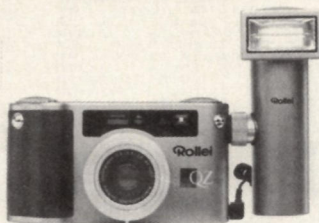
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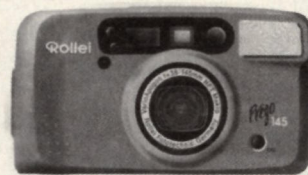
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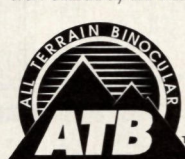
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TOM VEZO

Tom Vezo is a professional wildlife photographer and writer who runs "Photoguides" nature photography tours and workshops with his partner, Jim Roetzel. For information call Tom at (516) 969-1695, or Jim at (330) 686-0674.

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NEW! 105/2.8 Macro EX	398.	398.	---	398.	398.	---
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24-70/3.5-5.6	162.	162.	162.	162.	162.	162.
28-70/2.8	303.	303.	303.	303.	303.	---
28-70/2.8-4.0	130.	130.	130.	130.	130.	130.
28-80/3.5-5.6 Asph Macro	---	108.	108.	108.	108.	108.
28-105/4.6-6 UC	181.	181.	181.	181.	181.	181.
28-200/3.8-5.6 Asph	---	235.	235.	235.	235.	235.
70-300/4.5-5.6 DL Macro	---	198.	198.	198.	198.	198.
100-300/4.5-6.7 UC	154.	154.	154.	154.	154.	154.
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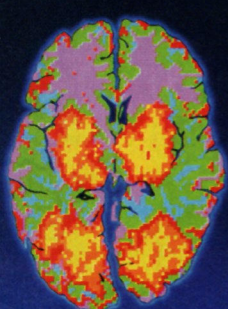
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NPL	160	17.99	74.95	64.23	---

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VELVIA RVP 50	53.95	PROVIA 100	49.95
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ROYAL GOLD RA USA	100	3.55	4.45
ROYAL GOLD RB USA	200	4.15	5.22
ROYAL GOLD RC USA	400	4.55	5.39
ROYAL GOLD RF USA	1000	5.19	6.59

PRO COLOR PRINT FILM/TRUE USA PRODUCTS!

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PJA	100	3.99	12.69	---	---
PRN	10	5.38	14.07	3.35	32.99
VPS	160	5.29	13.98	3.29	32.99
PMC	400	5.48	14.09	3.39	33.99
NEW! PJ400	400	4.59	13.19	---	---
PPF	400	5.49	---	3.45	33.99
NEW! PJ800	800	3.99	12.88	---	---
NEW! PMZ	1000	CALL	CALL	CALL	CALL

PRO SLIDE FILM -- TRUE USA

	ASA	135-36 USA	36X W KODAK PROC.	120 USA	220 PP USA	100' BULK
PKM	25	7.89	12.38	---	---	81.95
EPY	64T	7.49	11.98	4.19	---	89.95
EPR	64	7.99	12.49	4.29	42.99	---
PKR	64	7.88	12.38	---	---	89.95
EPN	100	7.87	12.24	4.34	44.45	89.95
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E100SW	100	7.59	12.18	4.43	43.80	94.95
NEW! E200	200	7.99	12.48	CALL	CALL	---
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EPD	200	8.60	12.99	4.60	47.05	98.34
PKL	200	8.95	13.39	---	---	---
EPL	400	9.35	13.79	5.75	---	114.

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	ASA	135-24 USA	135-36 USA	120 USA	220 P/PMK USA	BULK 100'
TMX	100	2.69	3.79	2.49	---	35.99
PK	125	2.57	3.69	---	---	30.00
PKP	125	---	---	2.55	25.99	31.95
TX	400	2.69	3.69	2.39	---	37.10
TMY	400	2.88	3.99	2.59	---	36.85
TMZ	3200	---	4.69	---	---	83.99
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KR USA	64	4.09	4.69
ELITE EA	50	4.55	6.38
ELITE II EB	100	3.54	3.85
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Nikon 8008, Nikkor 28-85mm *f*/3.5-4.5 Zoom, Gitzo Tripod, Fujichrome Velvia

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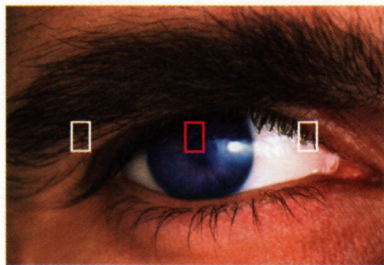
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